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CONTENTS OF VOLUME 1.

(This volume is bound in two parts.)

1. Report of the Auditor General for the year ended 31st March, 1909. Volume I, Parts A, C to J (inclusive) L, M, N; Volume III, Parts V, W, X, Y. Presented 12th November, 1909, by Hon. W. S. Fielding. Volume II, Ports B, K and O to U, (inclusive), presented 12th January, 1910, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 2.

2. Public Accounts of Canada, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

3. Estimates of the sums required for the services of Canada for the year ending on the 31st March, 1911. Presented 18th November, 1909, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

4. Supplementary Estimates of sums required for the service of Canada, for the fiscal year ending 31st March, 1910. Presented 24th November, 1909, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

5. Further Supplementary Estimates of sums required for the service of Canada, for the fiscal year ending 31st March, 1910. Presented 14th March, 1910, by Hon W. S. Fielding.

Printed for both distribution and sessional papers.

5*a*. Supplementary Estimates of sums required for the service of Canada for the fiscal year ending 31st March, 1911. Presented 3rd February, 1910, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

5*b*. Further Supplementary Estimates of the sums required for the service of Canada, for the fiscal year ending 31st March, 1911. Presented 30th April, 1910, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

5*c*. Further Supplementary Estimates of the sums required for the service of Canada, for the fiscal year ending 31st March, 1910. Presented 20th April, 1910, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 2—*Continued.*

6. List of Shareholders in the Chartered Banks of Canada, as on the 31st December, 1909. Presented 21st March, 1910, by Sir Wilfrid Laurier.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 3.

7. Report of dividends remaining unpaid, unclaimed balances and unpaid drafts and bills of exchange in Chartered Banks of Canada, for five years and upwards, prior to 31st December, 1909.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 4.

8. Report of the Superintendent of Insurance for the year ended 31st December, 1909.

Printed for both distribution and sessional papers.

9. Abstract of Statements of Insurance Companies in Canada, for the year ended 31st December, 1909.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 5.

10. Report of the Department of Trade and Commerce, for the fiscal year ended 31st March, 1909. Part I.—Canadian Trade. Presented 12th November, 1909, by Hon. W. S. Fielding.. .. ..*Printed for both distribution and sessional papers.*

10*a*. Report of the Department of Trade and Commerce. Part II.—Canadian Trade with France, Germany, United Kingdom and United States. Presented 12th November, 1909, by Hon. W. S. Fielding.. .. .. ..*Printed for both distribution and sessional papers.*

10*b*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1909. Part III.—Canadian Trade with foreign countries except France, Germany, United Kingdom and United States. Presented 29th November, 1909, by Sir Wilfrid Laurier.. .. ..*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 6.

10*c*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1909. Part IV.—Canadian Trade: Miscellaneous. Presented 12th November, 1909, by Hon. W. S. Fielding.. .. ..*Printed for both distribution and sessional papers.*

10*d*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1909. Part V.—Grain Statistics, including the crop year ended 31st August, 1909, and season of navigation ended 10th December, 1909. Presented 18th March, 1910, by Hon. W. S. Fielding.. .. ..*Printed for both distribution and sessional papers.*

10*e*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1909. Part VI.—Subsidized Steamship Services, with statistics showing steamship traffic to 31st December, 1909, and estimates for fiscal year 1910-1911. Presented 3rd May, 1910, by Sir Wilfrid Laurier..*Printed for both distribution and sessional papers.*

10*f*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1909. Part VII.—Trade of Foreign Countries and Treaties and Conventions. Presented 25th April, 1910, by Sir Wilfrid Laurier.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 6—*Continued.*

10*g*. Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 14th February, 1910, in respect to trade relations with Germany. Presented 15th February, 1910, by Hon. W. S. Fielding.
Printed for sessional papers.

10*h*. Trade relations with Germaney.—No. 2. Presented 2nd March, 1910, by Hon. W. S. Fielding.. .. .. .

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19. Report of the Minister of Public Works, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. W. Pugsley.
Printed for both distribution and sessional papers.

19*a*. (No issue.)

19*b*. (No issue.)

19*c*. Supplementary Report of the International Waterways Commission, 1909. Presented 19th November, 1909, by Hon. W. Pugsley.
Printed for both distribution and sessional papers.

19*d*. Report of the International Waterways Commission on proposed dam and regulation work at foot of Lake Erie, and appendices accompanying said report. Presented 17th February, 1910, by Hon. W. Pugsley.. .. ..*Not printed.*

19*e*. Additional correspondence, International Waterways Treaty, and Report on division of Waters of St. Mary and Milk River. Presented 4th April, 1910, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.

20. Report of the Department of Railways and Canals, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 11.

20*a*. Canal Statistics for the season of navigation, 1909. Presented 21st March, 1910, by Hon. G. P. Graham.. .. ..*Printed for both distribution and sessional papers.*

20*b*. Railway Statistics of Canada, for the year ended 30th June, 1909. Presented 12th January, 1010, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.

20*c*. Fourth Report of the Board of Railway Commissioners for Canada, to 31st March, 1908, for the year ending 31st March, 1909. Presented 12th November, 1909, by Hon. G. P. Graham.. .. ..*Printed for both distribution and sessional papers.*

20*d*. Report of the Hudson Bay Railway Surveys. Presented 13th December, 1909, by Hon. G. P. Graham.. .. ..*Printed for both distribution and sessional papers.*

21. Report of the Department of Marine and Fisheries (Marine) for 1908. Presented 15th November, 1909, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 12.

21*a*. Eighth Report of the Geographic Board of Canada, containing all decisions to June 30, 1909. Presented 25th November, 1909, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.

21*b*. List of Shipping issued by the Department of Marine and Fisheries, being a list of vessels on the registry books of Canada on the 31st December, 1909.
Printed for both distribution and sessional papers.

22. Report of the Department of Marine and Fisheries (Fisheries) for 1909. Presented 12th November, 1909, by Hon. S. A. Fisher.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 13.

22*a*. Lobster Fishery. Evidence taken before Commander William Wakeham, M.D., (Officer in charge of the Gulf Fisheries Division) in Quebec and the Maritime Provinces. Two volumes. Presented 11th March, 1910, by Hon. W. Templeman. Also copy of the Report of Commander Wakeham in relation thereto.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 14.

23. Report of the Harbour Commissioners, &c., to 31st December, 1908. Presented 13th January, 1910, by Hon. R. Lemieux..*Printed for both distribution and sessional papers.*

23*a*. Report of the Chairman of the Board of Steamboat Inspection, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. S. A. Fisher.
Printed for both distribution and sessional papers.

24. Report of the Postmaster General, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.

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25. Report of the Department of the Interior, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. F. Oliver.
Printed for both distribution and sessional papers.

25*a*. Report of the Chief Astronomer.
Printed for both distribution and sessional papers.

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25*b*. Annual Report of the Topographical Surveys Branch.
Printed for both distribution and sessional papers.

25*c*. Report of the High Commissioner for Canada, for the year ended 31st March, 1909. Presented 12th November, 1909, by. Hon. F. Oliver.
Printed for both distribution and sessional papers.

26. Summary Report of the Geological Survey Branch of the Department of Mines, for the calendar year 1909.
Printed for both distribution and sessional papers.

26*a*. Summary Report of the Mines Branch of the Department of Mines.
Printed for both distribution and sessional papers.

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27. Report of the Department of Indian Affairs, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. F. Oliver.
Printed for both distribution and sessional papers.

28. Report of the Royal Northwest Mounted Police, 1909. Presented 12th January, 1910, by Sir Wilfrid Laurier.. .. ..*Printed for both distribution and sessional papers.*

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29. Report of the Secretary of State of Canada for the year ended March 31, 1909. Presented 25th November, 1909, by Hon. C. Murphy.
Printed for both distribution and sessional papers.

29*a*. Report of the Imperial Conference with representatives of the self-governing Dominions on the Naval and Military Defence of the Empire, 1909. Presented 17th November, 1909, by Sir Frederick Borden. Also with additional papers relating to Australia and New Zealand, presented 10th December, 1909, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.

29*b*. Report of the Department of External Affairs, 1909.
Printed for both distribution and sessional papers.

30. Civil Service List of Canada, 1909. Presented 12th January, 1910, by Hon. C. Murphy.
Printed for both distribution and sessional papers.

31. First Annual Report of the Civil Service Commission of Canada, for the period from September 1st, 1908, to August 31, 1909. Presented 10th December, 1909, by Hon. C. Murphy.
Printed for both distribution and sessional papers.

32. Annual Report of the Department of Public Printing and Stationery, for the fiscal year ended 31st March, 1909. Presented 18th April, 1910, by Hon. C. Murphy.
Printed for both distribution and sessional papers.

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33. Report of the Joint Librarians of Parliament for the year 1908-9. Presented 11th November, 1909, by the Hon. the Speaker.. .. ..*Printed for sessional papers.*

34. Report of the Minister of Justice as to Penitentiaries of Canada, for the fiscal year ended 31st March, 1909. Presented 12th November, 1909, by Hon. A. B. Aylesworth.
Printed for both distribution and sessional papers.

35. Report of the Militia Council, for the fiscal year ended 31st March, 1909. Presented 1st December, 1909, by Sir Frederick Borden.
Printed for both distribution and sessional papers.

35*a*. Interim Report of the Militia Council for the Dominion of Canada on the Training of the Militia during the season of 1909. Presented 25th April, 1910, by Sir Frederick Borden.. .. .. *Printed for distribution.*

36. Report of the Department of Labour, for the fiscal year ended 31st March, 1909. Presented 12th March, 1909, by Hon. L. M. King.
Printed for both distribution and sessional papers.

36*a*. Report of the Deputy Minister of Labour on industrial conditions in the Coal Fields of Nova Scotia. Presented 25th November, 1909, by Hon. L. M. King.
Printed for both distribution and sessional papers.

37. Fifth Report of the Commissioners of the Transcontinental Railway, for the year ended 31st March, 1909. Presented 12th November, 1909, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.

38. Statement of Governor General's Warrants issued since the last session of parliament on account of the fiscal year 1909-10. Presented 15th November, 1909, by Hon. W. S. Fielding.. .. ..*Not printed.*

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39. Statement in pursuance of section 17 of the Civil Service Insurance Act, for the year ended 31st March, 1909. Presented 16th November, 1909, by Hon. W. S. Fielding. *Not printed.*

40. Statement of expenditure on account of miscellaneous unforeseen expenses, from the 1st April, 1909, to the 10th November, 1909, in accordance with the Appropriation Act of 1909. Presented 16th Novewber, 1909, by Hon. W. S. Fielding.. .. .. ..*Not printed.*

41. Statement of superannuation and retiring allowances in the Civil Service during the year ended 31st December, 1909, showing name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, also whether vacancy filled by promotion or by new appointment, and salary of any new appointee. Presented 16th November, 1909, by Hon. W. S. Fielding.. .. ..*Not printed.*

42. Return of constables employed on the Transcontinental Railway, as required under the provisions of section 6, chapter 92, of the Revised Statutes of Canada. Presented 19th November, by Hon. A. B. Aylesworth.. .. ..*Not printed.*

42*a*. Return to an order of the House of Commons, dated 16th November, 1909, for a copy of all reports, letters, communications and documents touching or relating to the resignation of Hugh D. Lumsden from his position as Chief Engineer of the National Transcontinental Railway, including a copy of all letters, communications or reports of the said Hugh D. Lumsden to the Prime Minister, touching or relating to his resignation, or to the affairs of the National Transcontinental Railway. Presented 23rd November, 1909.—*Mr. Borden.. .. ..Printed for both distribution and sessional papers.*

42*b*. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all correspondence had between the Minister of Railways and the Transcontinental Railway Commission relating to the sub-letting of contracts for the construction of the Transcontinental Railway in New Brunswick; and the failure of sub-constractors to make payment for supplies and material furnished by farmers, merchants and others for use in said work. Presented 13th December, 1909.—*Mr. Crocket.. ..Not printed.*

42*c*. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all correspondence connected with and relating to the letter of the Auditor General to the Secretary of the National Transcontinental Railway Commission of the 18th of August, 1909, in which the Auditor General points out that 64,192 cubic yards of excavation, classified at an average price of 83·06 cents, were subsequently reclassified at $1.10\frac{1}{4}$ per cubic yard, thereby increasing the cost by the sum of $17,453.80, and asking for an explanation. Presented 13th December, 1909.—*Mr. Lennox.. .. ..Not printed.*

42*d*. Return to an order of the House of Commons, dated 17th December, 1909, for a copy of all certificates, recommendations, letters, memoranda and documents in connection with the promotion of Mr. McIntosh on the 16th of November, 1908, from the position of Division Engineer, Division No. 6, District F, to the position of Assistant District Engineer, District F, and the increase of his salary from $200 to $275 per month; also of all complaints against the professional conduct or efficiency of Mr. McIntosh made to the Trans-continental Railway or the Railway Department before the date of promotion. Presented 24th January, 1910.—*Mr. Lennox.. .. ..Not printed.*

42*e*. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all correspondence between the following legal firms: Rothwell & Johnson, Rothwell, Johnson & Bergeman, and Rothwell, Johnson & Stubbs, on the one side, and the Government or the Transcontinental Railway Commissioners, on the other side, as to the instructions to the solicitors for legal services rendered in passing titles of property

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acquired by the Government, and in respect to the bill of cost and charges of the said several firms; and all papers, documents, letters, telegrams and correspondence having any reference to the items of charges of said firms appearing on page W—370 of the Auditor General's Report of 1909, amounting in the whole to $1,376.60. Presented 24th January, 1910.—*Mr. Meighen*.. .. ..*Not printed.*

42*f*. Return to an order of the House of Commons, dated 17th December, 1909: 1. Showing the names and addresses of the engineers who surveyed and located the line of the Eastern Division of the Transcontinental Railway, and the part of the railway covered by the work of each engineer. 2. The name and address of the engineer who prepared the estimates of quantities and prices of the section or portion of the line covered by each contract. 3. The names of the engineers acting upon behalf of the Railway Department, or Railway Commission, and the Grand Trunk Pacific Railway Company, in determining upon the form and wording of the specifications, as provided for by the seventh section of the agreement between the government and the company. 4. The names of such of the engineers acting in any of the capacities aforesaid, as subsequently acted in connection with construction, when and for how long, in what capacity, where their services have been dispensed with, and for what cause. 5. The names and addresses of all the engineers in the service of the Railway Commission, or Railway Department, on Districts B and F of the said Eastern Division, since the commencement of the construction of the railway, the capacity in which each was employed, the salary in each case, the promotions, increases of salary, retirements and dismissals which have taken place, the cause for promotion, dismissal or retirement in each case, and a copy of all complaints lodged with the commissioners or their chief engineer or the department, against any of these engineers. 6. The names of the engineers now in charge of or engaged upon District B and F, and the official position and salary of each. Presented 3rd February, 1910.—*Mr. Lennox*.. .. ..*Not printed.*

42*g*. Interim Report of the Commissioners of the Transcontinental Railway, being for the nine months ended 31st December, 1909, setting forth the receipts and expenditure in connection with the Eastern Division of the National Transcontinental Railway, and such other matters in relation to the said railway as appear to be of public interest. Presented 4th February, 1910, by Hon. G. P. Graham.. .. ..*Not printed.*

42*h*. Return to an order of the House of Commons, dated 7th February, 1910, showing all written objection to classification upon the Transcontinental Railway made since July 28th, 1908, and in reference to overbreak or other over expenditure since 2nd October, 1908. Presented 17th February, 1910.—*Mr. Lennox*.. .. ..*Not printed.*

42*i*. Return to an order of the House of Commons, dated 24th January, 1910, showing: (*a*) The names of the contractors for the construction of the National Transcontinental Railway and the number, mileage and location of the contract; (*b*) the estimated expenditure under each contract at the time the contract was let, based upon the engineer's estimate of quantities, at dates of the accepted tender; (*c*) the estimated increase or decrease in expenditure in each case occasioned by change in location, specification, construction, material, grade or other change subsequent to the letting of the contract; (*d*) the amount returned and claimed on progress estimates under each contract to date, the amount actually paid under each contract, and the estimated amount yet required to complete the work in each case; (*e*) the engineer's estimated quantity of solid rock, loose rock and common excavation in the section of line covered by each contract, the estimated cost under these headings, based upon the rates of the accepted tender, the actual expenditure under these headings to date, as shown by progress estimates, the amounts actually paid to date under these headings, and the

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estimated quantities of work yet to be done, and the estimated sums yet to be paid under these headings in respect of each contract. Also as to all contracts other than the twenty-one covered by the Return brought down on the 26th of April, 1909, No. 46h: a copy of (*a*) engineer's itemized estimate of quantities as to each contract of each class of work and material, as set out in the schedules and itemized, and total estimated expenditure based upon rates of accepted tender, and (*d*) a copy of all tenders received; (*c*) itemized quantities of work and material under the various headings actually done or furnished to date, and itemized, and total expenditure therefor; itemized statement of estimated quantities of work yet to be done and material, &c., yet to be furnished and itemized, and total estimated cost of the same based on contract prices. Presented 17th February, 1910.—*Mr. Lennox.*
Not printed.

42*j*. Return to an address of the House of Commons, dated 14th February, 1910, for a copy of all correspondence, submissions, references, reports, returns and orders in council, in reference to the adjustment of the disputed item of 581 cubic yards of excavation, claimed at 10 instead of $2.50 a cubic yard, referred to in a letter of the Auditor General to the Secretary of the Transcontinental Commission, dated the 18th August, 1909. Presented 24th February, 1910.—*Mr. Lennox*.. .. ..*Not printed.*

43. Report of Robert M. Coulter, Deputy Postmaster General, on his mission to Australia and New Zealand to discuss with the governments of those countries the possibility of taking steps that would lead to the inauguration of a steamship service between England, Australia and New Zealand, via Canada, on the Atlantic and Pacific oceans. Presented 22nd November, 1909, by Sir Wilfrid Laurier.. ..*Printed for sessional papers.*

44. Return to an order of the House of Commons, dated 16th November, 1909, for a copy of all correspondence, documents and papers of every description not already brought down touching the recent treaty with the French Republic, or any modification therein. Presented 24th November, 1909.—*Mr. Borden*.. .. ..*Not printed.*

45. Minutes of proceedings of the Board of Internal Economy of the House of Commons for the past year, pursuant to Rule of the House No. 9. Presented 24th November, 1909, by the Hon. The Speaker.. .. ..*Not printed.*

46. Detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, since last return (2nd February, 1909), submitted to the parliament of Canada under section 32 of chapter 19, of the Revised Statutes of Canada, 1906. Presented 25th November, 1909, by Hon. C. Murphy.. .. ..*Not printed.*

47. Return under chapter 125 (R.S.C), 1906, intituled: 'An Act respecting Trade Unions,' submitted to parliament in accordance with section 33 of the said Act. Presented 25th November, 1909, by Hon. C. Murphy.. .. ..*Not printed.*

48. Return of orders in council passed between the 1st of December, 1908 and the 31st October, 1909, in accordance with the provisions of section 5 of the Dominion Land Survey Act, chapter 21, 7-8 Edward VII. Presented 29th November, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

49. Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, between 1st December, 1908, and 31st October, 1909, in accordance with provisions of subsection (*d*) of section 38 of the regulations for the survey, administration, disposal and management of Dominion lands within the 40-mile railway belt in the province of British Columbia. Presented 29th November, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

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50. Return of orders in council passed between the 1st December, 1908, and the 31st October, 1909, in accordance with the provisions of the Forest Reserve Act, sections 7 and 13 of chapter 56, Revised Statutes of Canada. Presented 29th November, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

51. Return of orders in council passed between the 1st December, 1908, and the 31st October, 1909, in accordance with the provisions of the Rocky Mountain Park Act, section 5 of chapter 60, Revised Statutes of Canada. Presented 29th November, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

52. Return of orders in Council which have been published in the *Canada Gazette*, between 1st December, 1908, and 31st October, 1909, in accordance with the provisions of section 77 of the Dominion Lands Act, chapter 20 of the Statutes of Canada, 1908. Presented 29th November, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

53. Return to an order of the House of Commons, dated 18th November, 1909, for a copy of all correspondence and papers respecting the application by the United States immigration service to the Minister of the Interior, for the deportation of one Mrs. Goby, an alleged immigrant, to the United States of America from Canada, entering at the port of Sault Ste. Marie, Michigan, together with a copy of all orders, decisions, reports and returns regarding any action taken thereupon by the Department of the Interior. Presented 1st December, 1909.—*Mr. Boyce*.. .. ..*Not printed.*

54. General orders issued to the Militia between the 1st February, 1909, and the 1st November, 1909, inclusive. Presented 1st December, 1909, by Sir Frederirck Borden.
Not printed.

55. Report of the Ottawa Improvement Commission for the fiscal year ended 31st March, 1909. Presented 3rd December, 1909, by Hon. W. S. Fielding.
Printed for sessional papers.

56. Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 12th May, 1909, on the subject of a despatch from the Right Honourable the Principal Secretary for the Colonies, transmitting an invitation from the Honorary Secretary of the 12th International Congress on Alcoholism to the Government of Canada, to appoint delegates to attend the congress in question. Presented 6th December, 1909, by Sir Wilfrid Laurier.. .. ..*Not printed.*

57. Return to an order of the House of Commons, dated 22nd November, 1909, for a copy of all memorials, reports, correspondence and documents in the possession of the government not already brought down, relating to a survey of a route for a tunnel under the Straits of Northumberland between the province of Prince Edward Island and the mainland of Canada, and also relating to the construction of such tunnel. Presented 6th December, 1909.—*Mr. Warburton*.. .. ..*Not printed.*

58. Return (in so far as the Department of the Interior is concerned) of copies of all orders in council, plans, papers, and correspondence which are required to be presented to the House of Commons, under a resolution passed on 20th February, 1882, since the date of the last return, under such resolution. Presented 7th December, 1909, by Hon. F. Oliver.. .. ..*Not printed.*

58a. Return of lands sold by the Canadian Pacific Railway during the year ended on the 31st October, 1909. Presented 18th January, 1910, by Hon. F. Oliver.. .. ..*Not printed.*

59. Return to an address of the House of Commons, dated 16th November, 1909, for a copy of all orders in council at present in force with reference to immigration; also a copy of all regulations in force at the present time in connection with immigration in Canada. Presented 9th December, 1909.—*Mr. Wilson (Lennox)*.. .. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

60. Return to an order of the House of Commons, dated 22nd November, 1909, showing:— 1. The application made to the Railway Board for protection of railway crossings under the provisions of chapter 32 of the Statutes of 1909, an Act to amend the Railway Act, and (*a*) the cases in which these applications have been granted, (*b*) in which they have been refused, when refused, and the reason for refusal. 2. The names of the persons in each case making the application. 3. The cases in which the board of its own motion made an order for the protection of crossing under said act. 4. The appropriation made by the board out of the Railway Grade Crossing Fund under said act, and the crossing in respect of which such appropriations were made. 5. The character or description of the crossing in question, and the character, description and cost in each case of the construction work of protection ordered or directed by the board. 6. The amount in each case ordered or directed by the board to be paid out of the said fund and by the railway company and municipality or other party to the proceedings. 7. The cases in which the work ordered to be done (*a*) has been completed, (*b*) in which it is under construction, (*c*) the cases in which the municipality has submitted to or complied with the order of the board, and (*d*) cases in which the municipality has refused to comply. Presented 14th December, 1909.—*Mr. Lennox.*
Not printed.

61. Return to an order of the House of Commons, dated 24th November, 1909, showing what Indian lands within the territories now covered by each of the provinces of Manitoba, Saskatchewan and Alberta, have been sold yearly since 30th June, 1900; such information to be detailed as follows: the name of each reserve, the area sold therein yearly, the average prices realized, and the cash paid to the Indians concerned at the time of sale, under the terms of surrender. Presented 15th December, 1909.—*Mr. McGrath.*
Not printed.

62. Return to an order of the House of Commons, dated 22nd November, 1909, showing the areas sold or leased as oil lands in the Northwest, giving the amount sold or leased, the date when, and the parties to whom sold or leased, and if leased, the various assignments, if any, made thereof, and the dates of the same. Presented 15th December, 1909.—*Mr. Foster*.. .. ..*Not printed.*

63. Return to an order of the House of Commons, dated 16th November, 1909, showing: Copy of the contract for the dredging of the Napanee river during the summer of 1909; name of the contractor who had the contract; names of the engineers in charge of the work and the inspector; the depth and width of the channel after dredging; the length of time taken to complete the work; the total amount of money expended on the work; whether the work was done by day work or by the yard; and the prices paid by day or by yard. Presented 15th December, 1909.—*Mr. Wilson (Lennox).*
Not printed.

64. Return made to parliament in accordance with chapter 47, section 4, Revised Statutes, 1906, containing copy of the orders in council for the issue of licenses to United States fishing vessels to enable them to buy bait, ice, lines, &c. during the year 1910. Presented 16th December, 1909, by Hon. L. P. Brodeur.. .. ..*Not printed.*

65. Return, in pursuance of section 16 of the Government Annuities Act, 1908, containing statement of the business done during the fiscal year ending March 31st, 1909, together with a copy of the regulations made under section 13 of the act. Presented 17th December, 1909, by Hon. W. S. Fielding.. .. ..*Printed for sessional papers.*

66. Report of the Commissioner, Dominion Police Force, for the year 1909. Presented 12th January, 1910, by Hon. A. B. Aylesworth.. .. ..*Not printed.*

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67. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all reports and correspondence in connection with section 29, township 9, range 22, west of the 4th meridian, as well as applications for railway right of way and station grounds within such land. Presented 12th January, 1910.—*Mr. McGrath..Not printed.*

68. Return to an order of the House of Commons, dated 6th December, 1909, for a copy of all papers, reports, correspondence, &c., between the Department of the Interior and its officers and agencies and any other persons, relative to the s.w. ¼ section 24-38-10 w. 3rd m., and the respective claims of Allan R. Mudie and Thos. G. Warwick. Presented 12th January, 1910.—*Mr. Lake.. .. ..Not printed.*

69. Return to an order of the House of Commons, dated 15th December, 1909, showing the names of the two hundred and twenty-one members of the House of Commons, as provided for in 6-7 Edward VII., Dominion Statutes, 1907, chapter 41, section 1, excepting only such seat or seats as have fallen vacant. Presented 12th January, 1910.—*Mr. White (Renfrew).. .. ..Not printed.*

70. Return to an order of the House of Commons, dated 24th November, 1909, showing the total number of incubators and brooders, respectively, imported into Canada from the United States during the fiscal year ending March 31st, 1909, and the total cost of each. Presented 13th January, 1910.—*Mr. White (Renfrew).. .. ..Not printed.*

71. Return to an order of the House of Commons, dated 22nd November, 1909, for a copy of all letters, telegrams, applications, contracts and correspondence with regard to the taking of spawn for the fish hatchery at Snake Island, Winnipegosis, for the years 1907, 1908 and 1909. Presented 13th January, 1910.—*Mr. Campbell.. .. ..Not printed.*

72. Return to an order of the House of Commons, dated 15th December, 1909, showing a list of all exports, technical advisers, and special officers generally, engaged by the government in connection with the naval defence programme and its execution, giving names, special qualifications, duration of engagement and rate of remuneration, as well as the total amount expended to date under the above; also amounts expended to date for articles, books, instruments and objects of all kinds in connection with said naval defence programme. Presented 13th January, 1910.—*Mr. Monk.*
Printed for sessional papers.

73. Return to an order of the House of Commons, dated 29th November, 1909, showing the number of lighthouses in British Columbia, the salaries of the lightkeepers at the end of the financial year 1907-1908; what the salaries are to-day; why some salaries have been reduced and when such reduction took place. Presented 13th January, 1910.—*Mr. Smith (Nanaimo).. .. ..Not printed.*

74. Return to an address of the House of Commons, dated 18th November, 1909, for a copy of all orders in council, correspondence, documents and papers of every description relating to the proposed sale or disposal of any part of the Peigan Indian Reserve in the province of Alberta, including any advertisement of such sale and record of the proceedings, whether by vote or otherwise, under which any of the Indians on said reserve purported to give their consent thereto. Also a return showing the actual number of Indians on said reserve entitled to vote or elect in respect of such proposed sale, and all other information in the possession of the department or its officials relating to or in any way referring to the proceedings in connection with such proposed sale. Presented 13th January, 1910.—*Mr. Herron.. .. ..Not printed.*

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75. Return to an order of the House of Commons, dated 17th December, 1909, for a copy of all papers, reports, correspondence, &c., between the Department of the Interior, and its officers and agencies, and any other person, relative to the s.w. ¼ section 16-30-9, w. 3rd m., and the respective claims thereto of Thomas Paterson and J. F. Sibbald. Presented 13th January, 1910.—*Mr. Lake*.. .. ..*Not printed.*

76. Return to an order of the House of Commons, dated 24th November, 1909, showing approximately the amount of revenue collected by the government between the 1st January, 1908, and the 1st November, 1909, in the province of Alberta and Saskatchewan, respectively, on account of payments for coal lands, coal royalties, bonuses and rental on timber lands, timber dues, hay lands, grazing lands, irrigation areas, school lands, minerals, water powers, stone quarrying lands, Indian lands, or on account of any natural resources within each of the above provinces. Presented 13th January, 1910.—*Mr. McCarthy*.. .. ..*Not printed.*

77. Return to an order of the House of Commons, dated 17th December, 1909, for a copy of all documents and papers relating to the western shipment of grain. Presented 13th January, 1910.—*Mr. Taylor (Leeds)*.. .. ..*Not printed.*

78. Return to an order of the House of Commons, dated 24th November, 1909, for a copy of all letters, correspondence and complaints, or other papers, from Indians or others regarding the manner in which the St. Peter's Indians have been treated relating to lands allotted to them by the government in consideration of the surrender of St. Peter's Reserve. Presented 13th January, 1910.—*Mr. Bradbury*.. .. .. ..*Not printed.*

78*a*. Return to an order of the House of Commons, dated 13th December, 1909, for a copy of all instructions to J. O. Lewis, Indian Agent at Selkirk, regarding the delivery of patents to Indians entitled to same, in connection with the surrender of St. Peter's Reserve. Presented 13th January, 1910.—*Mr. Bradbury*.. .. ..*Not printed.*

78*b*. Return to an order of the House of Commons, dated 6th December, 1909, showing all moneys paid by the government in connection with the surrender of St. Peter's Reserve, to whom paid, and for what; also all moneys paid in connection with the moving of the Indians to the new reserve on Lake Winnipeg, to whom paid, and for what. Presented 13th January, 1910.—*Mr. Bradbury*.. .. ..*Not printed.*

78*c*. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all instructions sent to the Indian Agent at Selkirk, in connection with St. Peter's Indians pledging or disposing of their holdings, secured through the surrender of their reserve; a statement showing all those entitled to receive patents for lands in connection with the surrender of the reserve, the applications made by those so entitled for their patents, and receipts signed for the patents by those so entitled on delivery of the patent. Presented 13th January, 1910.—*Mr. Bradbury*.. .. ..*Not printed.*

78*d*. Copy of papers relating to St. Peter's Indian Reserve, comprising letters of instructions and commission to Mr. H. M. Howell, Report of H. M. Howell, and advertisement in connection with auction sale of lands. Presented 27th January, 1910, by Hon. F. Oliver.. .. ..*Not printed.*

78*e*. Return to an order of the House of Commons, dated 17th January, 1910, for a copy of all accounts of George Tracy, of Selkirk, against Indians of St. Peter's Reserve, Manitoba, now on file in the Department of Indian Affairs here, and of all correspondence in the department in relation thereto. Presented 31st January, 1910.—*Mr. Bradbury*.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

78*f*. Return to an order of the House of Commons, dated 14th February, 1910, for a copy of all papers and instructions given to A. S. Williams, Law Clerk of the Department of Indian Affairs, and to S. Swinford, Inspector of Indians, Winnipeg, in connection with their work among the St. Peter's Indians in Manitoba; also a copy of the report of these gentlemen in connection with the work they have been engaged in during the last few weeks among the St. Peter's Indians. Presented 4th April, 1910.—*Mr. Bradbury.*
Not printed.

79. Return to an order of the Senate, dated 26th November, 1909, for a copy of the several complaints which in 1908 and 1909 have been made by different parties to the Minister of the Interior or to the Superintendent of Immigration of the manner in which immigrants are treated at Quebec. Presented 13th January, 1910—*Hon. Mr. Landry.*
Not printed.

80. Return to an order of the Senate, dated 2nd December, 1909, for a copy of all accounts filed during the fiscal year 1907-8 in the Department of the Interior by Sosthène Morisset, one of the clerks of the Immigration office at Quebec. Presented 13th January, 1910.—*Hon. Mr. Landry*.. .. ..*Not printed.*

80*a*. Return to an order of the Senate, dated 3rd December, 1909, for a copy (1) of the medical certificate given by Doctors Pagé and Nadeau to justify the order for the sending back of the immigrant Otta Nittenen, in November, 1908; (2) of the correspondence on this subject exchanged between the agent of the Canadian Pacific Railway, Mr. Jules Hone, and Messrs. Lavoie and Stein of the Immigration Office at Quebec, and the Superintendent General of Immigration at Ottawa, Mr. W. D. Scott, in November and December, 1908. Presented 13th January, 1910.—*Hon. Mr. Landry.*
Not printed.

80*b*. Return to an order of the Senate, dated 3rd December, 1909, for a copy of the attendance and pay-lists of the employees in the Immigration Office at Quebec, for the first four months of the present year. Presented 13th January, 1910.—*Hon. Mr. Landry.*
Not printed.

80*c*. Return to an order of the Senate, dated 2nd December, 1909, for the Report of Detentions and Deportations at the port of Quebec for the month of November, 1908. Presented 13th January, 1910.—*Hon. Mr. Landry*.. .. ..*Not printed.*

80*d*. Return to an address of the Senate, dated 25th January, 1910, for a copy of the attendance and pay-lists of the employees of the Immigration Office at Quebec, for the months of January, February, March and April of 1909. Presented 10th February, 1910.—*Hon. Mr. Landry*.. .. ..*Not printed.*

80*e*. Return to an order of the Senate, dated 12th January, 1910, for a copy of the report made in 1906 to the Department of the Interior by Mr. Blair, upon the inquiry held by him at Quebec, at the Immigration Office, on the subject of certain complaints concerning the administration of the said office. Presented 22nd February, 1910.—*Hon. Mr. Landry*.. .. ..*Not printed.*

80*f*. Return to an order of the House of Commons, dated 13th December, 1909, for a copy of the correspondence exchanged since the 1st of January, 1908, between the medical examiners of immigrants and the Superintendent of Immigration, respecting the inspection of immigrants. Presented 23rd March, 1910—*Mr. Paquet*.. ..*Not printed.*

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80*g*. Return to an order of the Senate, dated 10th March, 1910, for the production of all complaints made to the Department of the Interior against the present Immigration Agent at Quebec, and of all the correspondence exchanged on this subject between the different parties in question and the department or any of its officers. Presented 6th April, 1910.—*Hon. Mr. Landry*.. .. .. .

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82. Return to an order of the House of Commons, dated 6th December, 1909, for a copy of all correspondence, reports, documents and papers touching the matter of the salmon fishery of Salmon River, Digby county, N.S., and the fishways or passes in said river. Presented 17th January, 1910.—*Mr. Jameson*.. .. ..*Not printed.*

83. Return to an order of the House of Commons, dated 22nd November, 1909, for a copy of all reports, correspondence and other papers relating to the condition and maintenance of the buoy on the Old Proprietor Ledge in the Bay of Fundy since January 1st, 1908; also of all reports, correspondence and other papers relating to the establishment, equipment, maintenance and operation of the life boat and life saving station at Seal Cove, in the Bay of Fundy; also copy of all instructions issued to Captain Lugar in connection with the inquiry into the wreck of the ss. *Hestia*, and of the findings and report on said inquiry. Presented 17th January, 1910.—*Mr. Daniel*.. .. ..*Not printed.*

83*a*. Supplementary Return to No. 83. Presented 14th February, 1910.. .. .. ..*Not printed.*

84. Return to an order of the House of Commons, dated 15th December, 1909, showing: 1. The present indebtedness to the Dominion government of the Montreal Turnpike Trust (*a*) on capital account, (*b*) for arrears of interest. 2. The amount collected at each toll gate belonging to the said turnpike trust during the year ending 31st December, 1908, and for the first six months of the year 1909. 3. The names of all parties who have commuted their tolls during each of the two above mentioned periods and the amount of the commutation money paid to the trust in each case. 4. The amount expended on each section or road division under the control of said trust, during the year ending 31st December 1908, and the contracts given out during the said year, with the name of the contractor and the date and amount of money involved in each case; and a statement in each case also as to whether the contract was awarded after tender called through newspapers. 5. The amount paid out during the said two first above-mentioned periods at each toll gate for salaries of day and night guardians and any other expenditures at each of the toll gates maintained. 6. The names of all parties holding passes for free use of the roads under control of said trust during the period above mentioned, with a statement, in each case, of the reason why the pass was so granted. 7. The expenses of the said trust during each of the two periods above mentioned for rent, salaries of the office, inside or outside service, giving name and remuneration of each official and amounts paid to any civil engineer employed by the trust. 8. The actual present indebtedness in detail of said trust outside of its bonds due to the government of Canada. 9. The amounts collected by said trust during the above-mentioned periods from municipalities under special agreements made as to their share pro rata of the bonded indebtedness of the turnpike trust. 10. The names of all members of the trust elected to represent the bondholders, with date of election in each case, during said two periods. 11. The amounts paid by the trust to any of its members or officials during said two periods, whether as travelling or personal expenses, or indemnity for attendance or for any other reason whatever. 12. The name of any auditor who has acted during said two periods, and the amount paid such auditor. 13. An exact statement of any amounts paid by the trust for purchase or lease of any property outside of the city of Montreal and in defraying the travelling or displacement or maintenance expenses of the trustees or their officials generally. Presented 17th January, 1910.—*Mr. Monk*.. .. ..*Not printed.*

85. Return to an address of the House of Commons, dated 29th November, 1909, for a copy of all orders in council relating to the North Atlantic Trading Company, and all correspondence between the North Atlantic Trading Company and the government, or any member or official thereof, since November 1, 1906, and up to 20th November, 1909. Presented 20th January, 1910.—*Mr. Wilson (Lennox)*.. .. ..*Not printed.*

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85*a*. Return to an order of the House of Commons, dated 15th December, 1909, for a copy of petition of right of pleas offered in defence in the case of the suit of the North Atlantic Trading Company vs. the King, in the Exchequer Court, and of all correspondence as well as reports and petitions which led up to the government granting a fiat to the suppliant; and a copy of all letters having reference to the said claim now sued upon from the time of the final payment to the said North Atlantic Company. Presented 20th January, 1910.—*Mr. Monk*.. .. ..*Not printed.*

86. Return to an order of the House of Commons, dated 6th December, 1909, for a copy of all correspondence, documents, and reports since the 1st January, 1908, between our immigration agents in Belgium and the Minister of the Interior. Presented 24th January, 1910.—*Mr. Paquet*.. .. ..*Not printed.*

86*a*. Return to an order of the House of Commons, dated 18th November, 1909, giving the names and addresses of all immigration agents at the present time employed by the government in Great Britain, the continent of Europe, and the United States, on salary, the amount of salary paid to each, the amount of other perquisites paid to each, if any; the names and addresses of all immigration agents at the present time employed by the government in the above countries on commission, the amount of such commission, the rate of commission per immigrant, the amount of other perquisites paid to each; the names and addresses of all special immigration agents in the above countries appointed during the fiscal years 1908-9 and up to 1st November, 1909, the date of the appointment of each, the address of each at the time of his appointment, the amount of salary, commission, or other perquisites paid to each, and the length of time served by each in respect of such appointment. Presented 4th February, 1910.—*Mr. Wilson (Lennox)*.. .. ..*Not printed.*

87. Return to an order of the House of Commons, dated 1st December, 1909, showing all casualties and accidents attended with danger or loss of human life, that have occurred in the Marine and Fisheries Department owing to the operation of pintsch and acetylene gas as an illuminant, for each year since 1880, together with a copy of all papers and reports in connection therewith. Presented 20th January, 1910.—*Mr. Foster.* *Not printed.*

88. Return to an order of the House of Commons, dated 6th December, 1909, for a copy of all correspondence, petitions, and other papers between any person or persons and the government, or any member thereof, or any official thereof, with reference to the dredging of the Napanee river. Presented 20th January, 1910.—*Mr. Wilson (Lennox).* *Not printed.*

89. Return to an order of the House of Commons, dated 13th December, 1909, for a copy of all correspondence had between the Post Office and Public Works Departments, together with all reports and other documents relating to the necessity of providing adequate post office accommodation in the city of Lethbridge. Presented 20th January, 1910.—*Mr. Magrath*.. .. ..*Not printed.*

89*a*. Supplementary Return to No. 89. Presented 18th February, 1910.. .. .. ..*Not printed.*

90. Interim Report of the Dominion Fisheries Commission for the investigation of the waters on Lac du Bonnet fisheries. Presented 20th January, 1910, by Sir Wilfrid Laurier.. .. ..*Not printed.*

90*a*. Interim Report of the Dominion Fisheries Commission for the investigation of the waters of Manitoba and the West. Presented 20th January, 1910, by Sir Wilfrid Laurier.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

90*b*. Return to an order of the House of Commons, dated 22nd November, 1909, for a copy of all letters, telegrams, applications, contracts, lease or leases and correspondence with regard to Lac du Bonnet fishing. Presented 27th January, 1910.—*Mr. Campbell.* *Not printed.*

90*c*. Return to an address of the House of Commons, dated 4th February, 1909, for a copy of all correspondence, orders in council, papers and documents relating to the question of fisheries in the Pembina river, in the province of Manitoba, and of regulations or agreements with the United States government in reference to the rivers running from one country into the other. Presented 14th February, 1910.—*Mr. Sharpe (Lisgar).* *Not printed.*

91. Return to an order of the House of Commons, dated 15th December, 1909, for a copy of the pay sheets of the employees on the Lachine canal under the supervision of Denis O'Brien for the months of May, June, July, August, September, October and November. Presented 24th January, 1910.—*Mr. Verville*.. .. ..*Not printed.*

92. Return to an order of the House of Commons, dated 24th January, 1910, for a copy of all instructions given during his term of office by the Honourable Speaker Blanchet, to the then sergeant-at-arms, or to other officials in connection with the appointment of sessional messengers. Presented 26th January, 1910.—*Mr. Monk*.. .. .. ..*Not printed.*

93. Return to an order of the House of Commons, dated 18th November, 1909, showing the number of fatal accidents resulting from the use of explosives in the construction of railways and other public works in Canada, reported to either the Department of Railways and Canals, the Department of Public Works, or the National Transcontinental Railway Commissioners, within the past three years; the nature of investigation, if held, after each accident; and what precautions have been taken to prevent or minimize the number of accidents from the use of explosives on construction work in Canada under control of governrment officials. Presented 26th January, 1910.—*Mr. Robb*.. .. ..*Printed for sessional papers.*

94. Return to an order of the House of Commons, dated 18th November, 1909, for a copy of all applications, petitions, letters, telegrams, documents, plans, specifications and correspondence with reference to, and in any way concerning the application for subsidy for the building of a dry-dock and ship-building yard by certain persons, or company, at or in the vicinity of the town of Sault Ste-Marie, Ontario. Presented 26th January, 1910.—*Mr. Boyce*.. .. ..*Not printed.*

94*a*. Return to an order of the House of Commons, dated 18th November, 1909, for a copy of all applications, petitions, letters, telegrams, documents, plans, specifications and correspondence with reference to and in any way concerning the application for subsidy for the building of a dry-dock and ship-building yard by certain persons, or company, at or in the vicinity of the town of Port Arthur, Ontario. Presented 11th March, 1910.—*Mr. Boyce*.. .. ..*Not printed.*

95. Return to an order of the House of Commons, dated 17th December, 1909, showing: 1. A description by sections, townships and ranges, with areas of all lands included in the area controlled by the Southern Alberta Land Company under agreements with the government, and the date of expiry of such agreements. 2. A description by sections, townships and ranges with areas of all lands held under grazing lease or leases or assignment of leases and now controlled by Messers. Cowdry & Maunsall, or either of them, of lands which lie between the Bow and Belly rivers, bounded on the east by range 12 and on the west by range 19, west of the fourth meridian. Presented 27th January, 1910.—*Mr. McCarthy*.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

96. Return to an order of the House of Commons, dated 17th January, 1910, showing: 1. What amount has been annually expended by the government since the year 1900 in connection with the Atlantic Fisheries of Canada, apart from sums spent in the fishery protection service and for bounty, in the respective provinces of Nova Scotia, New-Brunswick, Prince Edward Island and Quebec. 2. The amount expended in each of the said provinces annually for fishery breeding purposes, dog-fish reduction plants, bait freezers, cold storage and salaries of officials, respectively. 3. What other general purposes in connection with the fisheries expenditures were made in such provinces within said period. Presented 27th January, 1910.—*Mr. Jameson*.. .. .. ..*Not printed.*

97. Regulations of the National Parks of Canada. Presented 28th January, 1910, by Hon. F. Oliver.. .. ..*Printed for sessional papers.*

98. Return to an order of the House of Commons, dated 19th January, 1910, showing all tenders called for by the Department of Railways and Canals, or the purchasing agent of the Intercolonial Railway of Ottawa, at any time during the year 1909, for wire fencing; a copy of any tenders received for such fencing, with the names of the tenderers, and the prices quoted by the said parties tendering for the different kinds of fencing; the names of the successful tenderers, and the particular kind of fencing bought, the gauge of wire, number of stands and distances apart of the brackets in uprights; the price per rod, and where the wire was manufactured. Presented 1st February, 1910.—*Mr. Wilcox*.. .. ..*Not printed.*

98*a*. Return (in part) to an order of the House of Commons, dated 1st December, 1909, for a copy of all papers in connection with the alleged securing and sale or distribution of passes on the Intercolonial Railway within the last two years, and also of all papers of every kind in connection with the alleged padding of pay-lists on the Windsor Branch Railway, and the re-sale of mutilated railway ties to the government. Presented 16th February, 1910—*Mr. Foster*.. .. ..*Not printed.*

98*b*. Return to an order of the House of Commons, dated 24th January, 1910, showing: 1. How many derailments have taken place on the Intercolonial Railway during the year 1909. 2. At what points of the railway each of these derailments took place, and at what dates. 3. The report made in each case, and the cause or causes mentioned in such report. Presented 17th February, 1910.—*Mr. Talbot*.. .. ..*Not printed.*

98*c*. Return to an order of the House of Commons, dated 7th February, 1910, showing: Since the beginning of the autumn train service of 1909 on the Intercolonial Railway, at what time the train leaves Oxford Junction every week day morning for Pictou is due to leave Oxford Junction and arrive at Pictou; the actual time at which the train departed each day from Oxford Junction, the actual time at which it arrived each day at Pictou; the causes of the delay, if any; and what efforts are being made to improve the service in respect of time. Presented 24th February, 1910.—*Mr. Rhodes*.. .. ..*Not printed.*

98*d*. Return to an order of the Senate dated 15th February, 1910, for a statement showing in so many distinct columns: 1. The names of all the employees of the Intercolonial Railway who have been dismissed or who have resigned since the Intercolonial Railway was put under the direction of the Commission of that road. 2. The respective salaries of such employees. 3. The date of their appointment. 4. The date of their dismissal. 5. The number of the division or of the section of the railway where they were employed. 6. The domicile of such employees at the time of their dismissal. Presented 19th April, 1910.—*Hon. Mr. Landry*.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

98*e*. Return to an order of the House of Commons, dated 14th March, 1910, showing: Since the appointment of the Government Railways' Managing Board, how many employees of the Intercolonial Railway have been dismissed at Truro, at Halifax, and at Stellarton, respectively, with their respective names; at what kind of work each was employed; on what dates, respectively, each one was dismissed; how many of them since re-employed; on what dates, respectively, each one was re-employed; how long since such re-employment each one has remained in the service; how many of them are still in the service, with their names and what each one is employed at. Presented 20th April 1910.—*Mr. Rhodes*.. .. ..*Not printed.*

98*f*. Return to an order of the House of Commons, dated 22nd November, 1909, showing the number of passes issued on the Intercolonial Railway from October 1st, 1908, to October 1st, 1909, whether annual, return trip or trip, to whom issued, the authority and upon whose recommendation the passes were issued and reasons for the issue, the several points at which these passes took effect and the destination, and also a copy of the agreement entered into by the various railways of Canada regarding the non-issuing of passes. Presented 20th April, 1910.—*Mr. Stanfield*.. .. ..*Not printed.*

99. Return to an order of the House of Commons, dated 6th December, 1909, for a copy of all letters, communications, petitions and correspondence with and by the government, or any minister, with regard to the appointment of some one to fill the vacancy on the Board of Railway Commissioners, caused by the demise of the late Honourable Thos. Greenway. Presented 1st February, 1910.—*Mr. Campbell*.. .. .. ..*Not printed.*

100. Return to an address of the House of Commons, dated 29th November, 1909, for a copy of all memorials, reports, correspondence and documents in the possession of the government, relating to the reduction of the representation in the House of Commons, of the several provinces of Nova Scotia, New Brunswick and Prince Edward Island, and of all correspondence with the governments of these provinces with regard to the restoration to the said provinces of such representation as they respectively had at the time of their becoming provinces of this Dominion. Presented 1st February, 1910.—*Mr. Warburton*.. .. ..*Printed for sessional papers.*

101. Return to an order of the House of Commons, dated 19th January, 1910, for a copy of all declarations, affidavits and solemn declarations made and sent to the Post Office Department, or to the Honourable the Postmaster General, since the first day of September, 1907, up to the fifteenth day of January, 1910, respecting the franking privilege asked for the Arthabaska *Gazette*, with copies of the lists of pretended subscribers to that newspaper with the said declarations, affidavits and solemn declarations; also a copy of the report of Mr. A. Bolduc, Post Office Inspector, respecting the said Arthabaska *Gazette*. Presented 2nd February, 1910.—*Mr. Lavergne.*

Not printed.

102. Return to an order of the House of Commons, dated 13th December, 1909, showing a list of the free mail delivery routes which have been established in Canada, including the port of departure and the place of arrival, the length of each, the number of houses on each route, and the number of boxes on each route. Presented 3rd February, 1910.—*Mr. Armstrong*.. .. ..*Printed for sessional papers.*

102*a*. Return to an order of the House of Commons dated 6th December, 1909, for a copy of all papers, letters, telegrams, documents and correspondence with reference to or in any way concerning the installation of free mail delivery service in the city of Sydney, N.S. Presented 17th February, 1910.—*Mr. Maddin*.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

103. Return to an order of the House of Commons, dated 3rd February, 1910, for a copy of the report of Commander Wm. Wakeham, Special Commissioner and Inspector of Fisheries for the Gulf of St. Lawrence, on the Lobster Industry of the Maritime Provinces and the province of Quebec. Presented 3rd February, 1910, by Sir Wilfrid Laurier.. .. ..*See Sessional Paper No. 22a.*

104. Return to an order of the House of Commons, dated 17th January, 1910, for a copy of all correspondence, reports, despatches, documents and other papers relating in any way to the claim for a homestead, by the members of the family of Angus Sauve, who was in the African campaign, and who died a short time after his arrival in the country. Presented 4th February, 1910.—*Mr. Boyer*.. .. ..*Not printed.*

104*a*. (1909). 1. International Boundary Waters Treaty, signed at Washington, 11th January, 1909. 2. Rider attached by the United States Senate.
Printed for both distribution and sessional papers.

105. Report of a system of uniform and common international regulations for the protection and preservation of the food fishes in international boundary waters of Canada and the United States. Prepared by the International Fisheries Commission pursuant to and under the authority of the Convention of April 11, 1908, between Great Britain and the United States. Presented 4th February, 1910, by Sir Wilfrid Laurier.. .. ..*Printed for distribution.*

106. Return to an order of the House of Commons, dated 19th January, 1910, for a copy of all papers, letters, telegrams, documents and correspondence, occurring during the first six months of 1908, in connection with suggested amendments to the Northwest Irrigation Act. Presented 7th February, 1910.—*Mr. Magrath*.. .. ..*Not printed.*

107. Return to an address of the House of Commons, dated 16th November, 1909, for a copy of all petitions addressed to His Excellency the Governor General of Canada, or to the government, or any department thereof; also of all letters, correspondence of all kinds, and all reports had by the government in reference to the navigation, cleaning and deepening of the river known as River des Prairies, following along the northern boundary of the island of Montreal. Presented 7th February, 1910.—*Mr. Monk.*
Not printed.

107*a*. Report of Mr. G. de G. Languedoc, assistant engineer, in respect of work required to be done along Rivière des Prairies, to give a five-foot channel at low water for navigation. Presented 15th February, 1910, by Hon. W. Pugsley.. .. ..*Not printed.*

108. Return to an order of the House of Commons, dated 24th January, 1910, showing what interest or control the Canadian Northern Railway Company has in any of the following railway companies: The Ontario and Rainy River Railway Company, the Port Arthur, Duluth & Western Railway Company, the Manitoba & Southeastern Railway Company, the Minnesota & Manitoba Railway Company, the Minnesota & Ontario Bridge Company, the Saskatchewan Northwestern Railway Company, the Qu'Appelle, Long Lake & Saskatchewan Railway Company, the Alberta Midland Railway Company, the Edmonton, Yukon and Pacific Railway Company. 2. What subsidies either in land, money or by way of guarantee of securities have been granted to any of the railway companies mentioned on account of the main or branch lines or both, of the said companies, either by the Dominion government, or the provincial governments of Ontario, Manitoba, Saskatchewan and Alberta, or any muncipality through which their lines run. 3. What portion of these subsidies have been earned to date. 4. How many miles west of Edmonton a line of railway is constructed and in operation

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by the Canadian Northern Railway Company. 5. What work other than location survey work has been done west of this point up to date, how much and of what nature. 6. What portion, if any, will eventually form part of the proposed line to Vancouver. 7. When the location plan of the route of the C.N.R. between Edmonton and Vancouver, by way of the Yellow Head Pass was approved by the Minister of Railways and the Board of Railway Commissioners. 8. What applications, if any, have been made since to change or in any way alter this location plan. 9. To what extent, if any, the government of Manitoba has exercised its right of control of freight rates under section 8 of schedule B of the Act 1 Edward VII, chapter 53. 10. What effect, if any, this section of said act has had in reducing freight rates in the province of Manitoba. Presented 8th February, 1910.—*Mr. Lennox*.. .. ..*Not printed.*

109. Return for the year ended 31st December, 1909, of permits to take intoxicants into the Northwest Territories, in accordance with the requirements of chapter 62, section 88, of the Revised Statutes of Canada. Presented 8th February, 1910, by Hon. F. Oliver.
Not printed.

110. Return to an order of the House of Commons, dated 6th December, 1909, showing how many officials of the government, or of the Senate or House of Commons, have residences or living rooms in Ottawa supplied by the Crown, with the estimated yearly value and the rent charged in each case. Presented 14th February, 1910.—*Mr. Blain.*
Not printed.

110*a*. Supplementary Return to No. 110. Presented 24th February, 1910... ..*Not printed.*

111. Return to an order of the Senate, dated 26th January, 1910, showing the total amount of lands set apart for school purposes in Rupert's Land, or what now comprises the provinces of Manitoba, Saskatchewan and Alberta. The amount of said lands sold for school purposes yearly before the formation of the provinces of Saskatchewan and Alberta, and the average price realized per acre for same. The amount sold yearly in all the said provinces up to the year 1910, and the average price realized for same. The total amount of acres of school lands yet remaining unsold in the said provinces. Presented 15th February, 1910.—*Hon. Mr. Davis*.. .. ..*Not printed.*

112. Return to an order of the House of Commons, dated 6th December, 1909, showing the amount received by the Minister of Finance under the Land Titles Act, section 159, cap. 110, R.S.C., 57 and 58 Vic., cap. 28, sec. 116; how such fund is invested under sec. 160 of the same Act; the amount of interest which has accrued from said fund; and the amount paid for losses arising from bad titles guaranteed by said fund. Presented 22nd February, 1910.—*Mr. Macdonell*.. .. ..*Not printed.*

113. Return to an order of the House of Commons, dated 17th January, 1910, showing: 1. The name, cost, date of construction, place of construction, and gross tonnage of each of the steam vessels now owned by the Dominion government. 2. The names of those built in Canada. 3. What ones thrown open to Canadian competition. 4. In each case that was open to Canadian competition, the difference between the lowest Canadian tender and the price paid. 5. In each case where a contract was made with a builder for the construction of any of said steam vessels, the month and day when each of said contracts were signed, and when each of said contracts called for delivery of vessels. 6. The price each of the said steam vessels would have cost if the government in each case paid the current Canadian customs duty chargeable on vessels constructed outside of Canada. Presented 24th February, 1910.—*Mr. Sinclair.*
Printed for sessional papers.

CONTENTS OF VOLUME 19—*Continued.*

114. Return to an order of the House of Commons, dated 15th March, 1909, showing: 1. The number and names of the various dredges owned by the government. 2. When and by whom constructed, or when and from whom purchased. 3. The price paid for each dredge. 4. On what work each dredge has been engaged in in each of the years 1905, 1906, 1907 and 1908. 5. How many months during each of these years each dredge was working, and how many cubic yards of material each dredge removed per month. 6. The cost of maintaining and cost of operating each dredge for each of these years. 7. The names of the dredges leased during these years, if any, to whom leased, on what terms, and what amounts were received each year under such leases. Presented 24th February, 1910.—*Mr. German*.. .. ..*Not printed.*

115. Return to an order of the House of Commons, dated 19th January, 1910, for a copy of all letters, telegrams, petitions and other correspondence in connection with the establishing of a post office to be named Charleston or Kelmont, on the south side of Assiniboine river, in the parish of St. Charles, province of Manitoba. Presented 24th February, 1910.—*Mr. Staples*.. .. ..*Not printed.*

116. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all correspondence between the District Officer Commanding Military District Number 11 and the Department of Militia, with reference to the battery of 12-pounder B.L. guns recently sent to Esquimalt, or with reference to the proposal that No. 1 Company of the 5th Regiment, C.A., should train on said guns. Presented 24th February, 1910.—*Mr. Barnard*.. .. ..*Not printed.*

117. Return to an order of the House of Commons, dated 7th February, 1910, showing the total cost to Canada of the Military College buildings and grounds, and the amount furnished each year by the government towards its maintenance. Presented 24th February, 1910.—*Mr. Armstrong*.. .. ..*Printed for sessional papers.*

118. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all papers, affidavits and correspondence between the Interior Department and John A. Dunn, or anyone in his behalf, and any official of the department, concerning the application for patent of the n.w. ¼ sec. 34, tp. 35, range 16, west of the 2nd meridian. Presented 24th February, 1910.—*Mr. Roche*.. .. ..*Not printed.*

119. Statement of the affairs of the British Canadian Loan and Investment Company (Limited), for the year ended 31st December, 1909. Also a list of the shareholders on 31st December, 1909, in accordance with chapter 57 of 39 Victoria. Presented (Senate) 25th February, by the Hon. the Speaker.. .. ..*Not printed.*

120. Return to an order of the Senate, dated 23rd November, 1909, for a copy of each charter granted since 1st June, 1909, by the Secretary of State, by letters patent under The Companies Act, chapter 79 of the Revised Statutes, 1906. (*a*) Incorporating any company with powers for the development, production, distribution or use of water power for any purposes; or with powers for the production, distribution and use of water power for any purposes; or with powers for the production, distribution and use of electricity in any form by any means, whether directly or by the transformation thereof into heat, light, power or any other kind of energy; or (*b*) conferring such powers upon any company previously incorporated. Presented 1st March, 1910.—*Hon. Mr. David*.. .. ..*Not printed.*

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121. Return to an order of the House of Commons, dated 14th February, 1910, showing the amounts that have been paid to the *Whig* Publishing Company for printing and advertising by or for any departments of this governrment other than Militia and Defence and Marine and Fisheries, each year, from 1896 to the present time. Presented 2nd March, 1910.—*Mr. Edwards*.. .. ..*Not printed.*

121*a*. Supplementary Return to No. 121. Presented 10th March, 1910.. .. .. ..*Not printed.*

122. Return to an order of the House of Commons, dated 29th November, 1909, for a copy of all letters, correspondence, papers, bills and memorials, passing between the government of the province of Manitoba and the Dominion government since 1st January, 1907. Presented 2nd March, 1910.—*Mr. Roche*.. .. ..*Not printed.*

122*a*. Return to an address of the House of Commons, dated 28th February, 1910, and also of the Senate, dated 24th February, 1910, for a copy of all correspondence between the Dominion government and the government of Manitoba on the subject of the extension of the boundaries of the province of Manitoba since the resolution adopted by the House of Commons on the 13th day of July, 1908. Presented 2nd March, 1910.—*Hon. Mr. Watson and Mr. Molloy*.. .. ..*Not printed.*

123. Return to an address of the Senate, dated 3rd February, 1910, for the production of all correspondence between the Honourable George E. Foster, M.P., and the government of Canada, or any of their members since the year 1878, in relation to appointment of judges to the judicial bench and of members to the Senate of Canada. Presented 6th April, 1910.—*Hon. Mr. Cloran*.. .. ..*Not printed.*

124. Return to an order of the House of Commons, dated 28th February, 1910, showing all sums of money received by the *Soleil* Publication Company, the *Vigie* Publication Company, and the *Daily Telegraph* Publication Company of Quebec, from the different federal departments, and from the Transcontinental Commission, since the first day of March, 1908, and the respective dates of each payment. Presented 3rd March, 1910.—*Mr. Paquet*.. .. ..*Not printed.*

125. Return to an order of the House of Commons, dated 29th November 1909, for a copy of all correspondence, reports, advertisements, tenders, contracts and other papers and documents relative to the maintenance of a wrecking plant on the Pacific or Atlantic coasts, or in the River or Gulf of St. Lawrence, not already brought down. Presented 3rd March, 1910.—*Mr. Taylor (Leeds)*.. .. ..*Not printed.*

126. Return to an order of the House of Commons, dated 19th January, 1910, showing how much money has been paid by this government in each year from 1896 to 1909, both years included, to the firms of Elliott Bros., and of R. Carson, of Kingston, Ontario, for supplies furnished to, or services of any kind performed by the government. Presented 4th March, 1910.—*Mr. Edwards*.. .. ..*Not printed.*

127. Return to an order of the House of Commons, dated 19th January, 1910, showing: 1. The amount of Canada's copper, silver, and gold coinage, respectively, for each of the last ten years, and the cost and profit of each year's coinage, counting the interest and depreciation of the cost of the Canadian Mint at 6 per cent, and the cost of maintenance and staff for the years during which it has been in operation. 2. The amount of United States silver, and at what cost that has been deported each year, and the estimated amount of United States silver current in Canada from year to year. Presented 4th March, 1910.—*Mr. Foster*.. .. ..*Not printed.*

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128. Return to an order of the House of Commons, dated 7th February, 1910, showing the number of chartered banks that have gone into liquidation since 1888, the date of the charters of each, the date of suspension, the capital stock, assets and liabilities, respectively, at date of supension, and the per cent of dividends paid to both holders and depositors respectively. Also what other banks have disappeared by amalgamation or otherwise, with similar information as above in respect to them. Presented 4th March, 1910.—*Mr. Foster*.. .. ..*Not printed.*

129. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all memorials, reports, correspondence and documents not already brought down, including report of the survey made during the past summer and autumn of the harbour at Cape John and Tatamagouche Bay, in the counties of Pictou and Colchester, in the province of Nova Scotia, relating to the route of the winter steamers between Prince Edward Island and the mainland of Canada, and suggesting and recommending a change or changes in the said route, and an increase in the number of trips daily of such winter steamers; and also a copy of all memorials, reports, correspondence and documents relating to the route of the summer mail steamers between Charlottetown and the mainland of Canada, and suggesting a change or changes in that route, and an increase in the number of trips daily of such summer mail steamers; and also with regard to connecting such suggested new summer route or routes with a point or points on the Intercolonial Railway; and also for a copy of all memorials, and correspondence, asking for additional and improved aids to navigation of the harbour of Charlottetown and in Tatamagouche Bay and harbour. Presented 4th March, 1910.—*Mr. Warburton*.. .. ..*Not printed.*

130. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all reports of surveys of any projected railway lines or routes in the province of Prince Edward Island during the years 1908 and 1909, and particularly reports of the surveys of any such line from Royal Junction, or thereabouts, to Kensington or thereabouts; also of all correspondence, recommendations, documents and papers of every kind, nature and description relating to or concerning the said projected railway lines or routes or the surveys therefor. Presented 6th March, 1910.—*Mr. Borden*..*Not printed.*

130*a*. Return to an order of the House of Commons, dated 14th March, 1910, for a copy of all memorials, reports of surveys, engineers' reports, estimates, correspondence and documents in the possession of the Department of Railways and Canals, and of the Intercolonial Railway Commission, relating to the survey and construction of a proposed branch of the Prince Edward Island Railway through New London and along the north shore of Queens County, in that island. Presented 8th April, 1910.—*Mr. Warburton.*
Not printed.

131. Return to an order of the Senate, dated 22nd February, 1910, for a comparative statement for the years 1907, 1908 and 1909, of crude petroleum oil imported into Canada, and values. Presented 4th March, 1910.—*Hon. Mr. Domville*.. .. ..*Not printed.*

132. Return to an order of the House of Commons, dated 28th February, 1910, for a copy of reports of the following Quarantine Frontier Inspectors: Dr. Bradford, Dr. Carter, Dr. Duncan, Dr. Thornton, Dr. Wallace, Dr. May, Dr. McKenty, Dr. Little, Dr. Henderson and Dr. Scott. Presented 9th March, 1910.—*Mr. Sharpe (Lisgar)*..*Not printed.*

133. Report of the Hydrographic Survey, in connection with Irrigation, for the season of 1909. Presented 10th March, 1910, by Hon. F. Oliver.
Printed for both distribution and sessional papers.

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134. Return to an order of the House of Commons, dated 17th February, 1909, showing particulars of the places where the expenditures mentioned in column 365, unrevised *Hansard*, for wharfs in Nova Scotia, New Brunswick and British Columbia, where made, together with amounts expended in each instance for construction and repairs, respectively. Presented 10th March, 1910.—*Mr. Barnard*.. .. ..*Not printed.*

135. Return to an address of the House of Commons, dated 16th November, 1909, for a copy of all petitions addressed to the government or any member thereof, as well as of all letters, correspondence and reports in the possession of the government, and having reference to repairs required at two wharfs built by the government and situated at Ste. Genevieve and Isle Bizard, in Jacques Cartier County, P.Q., and also all the correspondence concerning the construction of those wharfs, and of their use as piers for a bridge. Presented 11th March, 1910.—*Mr. Monk*.. .. ..*Not printed.*

136. Return to an order of the House of Commons, dated 17th January, 1910, showing the foreign exhibitions in which Canada has taken part since July, 1896, the time and place where such was held, the expenditure thereon by the government of Canada, the persons, not common labourers, who had charge of the same or were employed thereat, the sums paid to such severally under the heads of (*a*) salary, (*b*) expenses, and the total cost to the country of each such exhibition; also the amounts received as revenue from the sale of articles or commodities, lumber, buildings and other materials, respectively. The whole statement to be made up in tabular form and the additions of money columns to be made. Presented 11th March, 1910.—*Mr. Foster.*
Printed for sessional papers.

137. Return to an order of the Senate, dated 18th February, 1910, for a statement showing the number of homestead entries, pre-emptions, scrip locations and military warrant locations in townships 35, 36, 37, 38 and 39, in ranges 1 to 19, inclusive, of 4th meridian, and in townships 32, 33 and 34, in ranges 1 to 8 inclusive, west of 4th meridian. Presented 16th March, 1910.—*Hon. Mr. Talbot*.. .. ..*Not printed.*

138. Return to an order of the House of Commons, dated 19th January, 1910, for a copy of all correspondence between the government, or any member thereof, and the Imperial South African Service Association, or any of its officers, in reference to a proposed military reserve to be formed by the members of the Imperial South African Veterans' Association. Presented 17th March, 1910.—*Mr. Macdonald*.. ..*Not printed.*

139. Return to an address of the House of Commons, dated 14th February, 1910, for a copy of all orders in council, correspondence, reports, documents and papers, relating to the right or privilege to raise the waters of Clear Lake, province of Manitoba, application for which was made by a company to develop power on the Little Saskatchewan river. Presented 21st March, 1910.—*Mr. Roche*.. .. ..*Not printed.*

140. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all correspondence, advertisements, tenders and other documents, in connection with a proposal or proposals to lease a part or the whole of the Black Foot Reserve. Presented 21st March, 1910.—*Mr. Magrath*.. .. ..*Not printed.*

141. Return to an order of the House of Commons, dated 14th March, 1910, for a copy of all correspondence, reports, documents and papers relating to the strike of the employees of the Dominion Coal Company and the Cumberland Coal and Railway Company, in the counties of Cape Breton and Cumberland, Nova Scotia. Presented 23rd March, 1910.—*Mr. Rhodes*.. .. ..*Not printed.*

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141*a*. Supplementary Return to No. 141. Presented 13th April, 1910... .. .. ..*Not printed.*

142. Return to an order of the House of Commons, dated 24th November, 1909, showing the total amounts paid by the government in each year since 1896, for all printing, advertising and lithographing done outside of the Government Printing Bureau; the total amount so paid by each department of the government for such purposes during each year; the names and addresses of each individual, firm or corporation to whom any such moneys have been so paid, and the total amount paid to each individual, firm or corporation in each year since 1896. What portion of the said sums, if any, so paid since 1896, was expended after public advertisement, tender and contract, to whom such tenders were awarded, whether to the lowest tender in each case, what portion was expended otherwise than by public advertisement, tender and contract, and to whom it was paid in each instance. Presented 23rd March, 1910.—*Mr. Armstrong.*
Not printed.

143. Return to an order of the House of Commons, dated 19th January, 1910, showing: 1. How much money has been paid by this government from 1896 to the present time to the firm of Sullivan & Langdon, contractors, of Kingston, or to Mr. Sullivan, contractor, Kingston. 2. What public buildings or other public works that have been let by contract to either of the above firms since 1896, the contract price in each case, and the total amount paid to the said contractors in each case. 3 The total cost of each building or public work in which either of the above mentioned firms was interested. Presented 23rd March, 1910.—*Mr. Edwards*.. .. ..*Not printed.*

144. Return to an order of the House of Commons, dated 19th January, 1910, showing: 1. All amounts which may be deducted from the allowances due officers commanding corps of the active militia to cover deficiencies in clothing, &c., deposited to the credit of the Receiver General of Consolidated Revenue. 2. The amount of money that has been received from officers commanding corps of active militia during the five years ended 31st March, 1909, in payment for clothing issued to such corps, including deductions from allowances to cover repayment to replace deficiencies. Presented 30th March, 1910.—*Mr. Worthington*.. .. ..*Not printed.*

145. Rules of the Supreme Court of Saskatchewan, under the provisions of section 576 of the Criminal Code. Presented 30th March, 1910, by Hon. A. B. Aylesworth.
Not printed.

146. Copy of correspondence between the Canadian government and the government of Great Britain in respect to the purchase by Canada of the cruiser *Rainbow*. Presented 30th March, 1910, by Sir Wilfrid Laurier.. .. .. ..*Printed for sessional papers.*

146*a*. Copy of correspondence between the Canadian government and the government of Great Britain in respect to the purchase of the cruiser *Niobe*. Presented 30th March, 1910, by Sir Wilfrid Laurier.. .. ..*Printed for sessional papers.*

147. Return to an order of the House of Commons, dated 7th February, 1910, for a copy of all correspondence respecting the Central Park Post Office during the year 1909 and including particularly a copy of: 1. Representations made to the department that by changing the location of the office and establishing a post office at Collingwood East, the interest of the majority of the residents would be best served. 2. The evidence taken at the inquiry following such representations, and the official report upon such evidence. 3. Communications from residents of Central Park and others with respect to the closing of the post office there, and the answer made thereto in accordance with the facts. 4. The information upon which it was determined that the removal of the post office would be a greater convenience. 5. The largely signed petition from patrons

CONTENTS OF VOLUME 19—*Continued.*

of the Central Park Post Office complaining of the management, &c.; and the report of the inspector who investigated the same. Presented 31st March, 1910.—*Mr. Taylor (New Westminster)*.. .. .. .

CONTENTS OF VOLUME 19—*Continued.*

155*a*. Return to an order of the House of Commons, dated 14th February, 1910, for a copy of all payments, accounts and vouchers for wages, materials and other expenditures in connection with work on the Toney river, Boat Harbour, Pictou County, Nova Scotia, in the years 1907, 1908 and 1909. Presented 8th April, 1910.—*Mr. Rhodes.*
Not printed.

156. Return to an order of the House of Commons, dated 15th December, 1909, showing: At what places in the several provinces armouries and drill halls have been erected, and when they were erected; the total cost of the site in each case, and when and from whom purchased; the contract price of each building, and to whom and when the contract was awarded; the total cost of each building; in what places armouries and drill halls are being constructed at present, and the cost of the site, from whom and when purchased; the estimated cost of the building in each case, and to whom, when and at what price the contract was awarded, and the names of places other armouries and drill halls are to be built by the government in the near future. Presented 8th April, 1910.—*Mr. Edwards*.. .. ..*Not printed.*

156*a*. Suplementary Return to No. 156. Presented 14th April, 1910.. .. ..*Not printed.*

157. Return to an order of the House of Commons, dated 28th February, 1910, for a copy of all correspondence, accounts, vouchers and reports, relating to the accident at Sault Ste. Marie lock in June, 1909; the number of vessels and tonnage with port of destination, and number of passengers passing through the Canadian lock at Sault Ste. Marie, during the months of April to December, both inclusive, 1909. Presented 8th April, 1910.—*Mr. Boyce*.. .. ..*Not printed.*

158. Return to an order of the House of Commons, dated 28th February, 1910, for a copy of the original field notes of the survey of Captain Jemmett, 1889, on Chu-Chu-Way-Ha Reserve, No. 2, Similkameen District, B.C. Presented 14th April, 1910.—*Mr. Burrell.*
Not printed.

159. Return to an order of the House of Commons, dated 14th February, 1910, for a copy of all pay sheets, accounts and vouchers for wages, materials and other expenditures in connection with work on the Causeway between Cariboo and Cariboo Island, Pictou County, Nova Scotia, in the years 1907, 1908 and 1909. Presented 14th April, 1910.—*Mr. Borden (Halifax)*.. .. ..*Not printed.*

160. Statement of representation made to the Honourable the Minister of Labour by interviews and in the form of correspondence in respect of Bill No. 101, 'An Act for the investigation of combines, monopolies, trusts and mergers which may enhance prices or restrict competition tothe detriment of consumers.' Presented 14th April, 1910, by Hon. W. L. M. King.. .. ..*Not printed.*

161. Return to an order of the House of Commons, dated 14th March, 1910, for a copy of all papers and correspondence relating to the sale and refund of the money paid on the sale of the n.e. ¼ section of section 11, township 1, range 9, west of the 1st meridian in Manitoba. Presented 15th April, 1910.—*Mr. Sharpe (Lisgar)*..*Not printed.*

162. Return to an order of the Senate, dated 7th April, 1910, for a copy of all correspondence or petitions received by the government from Manitoba grain growers in connection with terminal elevators, especially a letter dated the 31st January, 1910. Presented 14th April, 1910.—*Hon. Mr. Kirchhoffer*.. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

163. Return to an address of the Senate, dated 11th March, 1910, for the production of the report of every inquiry made and of all correspondence exchanged during the last five years on the subject of one or more seizures of goods consigned to or the property of the Quebec Rock City Tobacco Company, as well as on the subject of every remission of fines incurred by the said company for infraction of the Inland Revenue laws or regulations. Presented 14th April, 1910—*Hon. Mr. Landry*.. .. ..*Not printed.*

164. Return to an order of the House of Commons, dated 7th February, 1910, showing the number of persons appointed as temporary employees of the civil service in the several departments since the present Civil Service Act came into force, the date of the appointment of each, their names, their salaries while employed as such temporary employees, the department in which such employee was placed, the duration of their employment, whether in one department alone or in case of transfer to another or other department, with total length of time employed, the names of those who in consquence of having passed the Civil Service examination have been employed permanently, the names of those who while temporarily employed failed to pass the required examination and are still employed in the service; the names of those who are or have been employed over the statutory six months as temporary employees, and the reasons for such continued employment in each case. Presented 18th April, 1910.—*Mr. Hughes.*
Not printed.

165. Return to an order of the House of Commons, dated 19th January, 1910, for a copy of all papers, letters, telegrams, documents and correspondence in connection with the establishment of the Experimental Farm near Lethbridge, Alta. Presented 18th April, 1910.—*Mr. Magrath*.. .. ..*Not printed.*

166. Certified copies of reports of the Committee of the Privy Council of 17th Januray, 1908, and of the 14th November, 1908, respecting a homestead entry granted to Mr. Charles D. T. Becher, for the n.e. ¼ of section 20, township 52, range 24, west of the fourth meridian, &c. Presented 18th April, 1910, by Hon. F. Oliver.. .. ..*Not printed.*

167. Return to an order of the Senate, dated 10th February, 1910, of all surveys, plans, reports and other documents connected with the improvement of the Saskatchewan river, with a view to facilitate transportation by water of passengers and freight from the foot of the Rocky Mountains to the city of Winnipeg, Man. Presented 19th April, 1910.—*Hon. Mr. Davis*.. .. ..*Not printed.*

168. Return to an order of the House of Commons, dated 24th November, 1909, for a copy of all correspondence and papers, and any information possessed by the government relating to the formation and work of the Secretariat decided upon by the Imperial Conference of 1907. Presented 20th April, 1910.—*Mr. Foster.*
Printed for both distribution and sessional papers.

169. Correspondence between the Clerk of the House and the Department of Justice with reference to the organization of the staff of the House of Commons. Presented 21st April, 1910, by Hon. W. S. Fielding.. .. ..*Not printed.*

170. Certified copy of a report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 15th April, 1910, in respect to chapter 10 of the Statutes of Ontario, 1909, intituled: 'An Act to amend an Act to chapter 19 of the Statutes of Ontario, 1909,' intituled: 'An Act to amend an Act to provide for the transmission of Electrical Power to Municipalities,' to validate certain contracts entered into with the Hydro-Electric Power Commission of Ontario, and for other purposes.' Presented 25th April, 1910, by Hon. A. B. Aylesworth.. .. .. ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

171. Return to an order of the House of Commons, dated 14th March, 1910, for a copy of all papers and correspondence between different persons or companies and the Department of Mines, in reference to a charge of unprofessional conduct made in the *Canadian Mining Journal* of July 1, 1909, against Mr. Fritz Cirkle, a mining engineer, temporarily employed by the Department of Mines in preparing a report on the asbestos mining industry of the province of Quebec. Presented 27th April, 1910.—*Mr. Smith (Nanaimo)*.. .. .. .

CONTENTS OF VOLUME 19—*Continued.*

178. Return to an order of the House of Commons, dated 28th February, 1910, for a copy of all representations made by business or commercial men or citizens of Winnipeg to the department or government since the contemplated action of the government in reference to closing or keeping open the post office to box holders on Sundays, and who made them; and of all orders given by the Postmaster General or his department to the postmasters in reference to this Sunday closing. Presented 2nd May, 1910.—*Mr. Haggart (Winnipeg)*.. .. .. .

RETURN

(33)

REPORT OF THE JOINT LIBRARIANS OF PARLIAMENT, 1908-9.

To the House of Commons.

The Joint Librarians of Parliament have the honour to present their report for the year 1908-9.

The latest revised laws of many of the American states have been procured; and by process of exchange, the revised laws of most of the Colonial dependencies have been obtained. There is probably no part of the Empire unrepresented on our shelves.

The discussions on the question of defence have been followed during the recess; and members will find in the card catalogues references to many authorities, articles, reports of speeches, &c.

During the recess efforts have been made to procure shelf room for the current official publications of the Federal and Provincial Governments.

Having, during several years called the attention of Parliament to the necessity for providing additional space in the Library, the Librarians have only to add to former representations, the statement that the necessity grows each year more pressing. It will be hardly just to hold the Librarians responsible for delays and confusion which they have endeavoured to prevent, but which can hardly be longer avoided. The plans for an extension of the Library prepared by the Chief Architect and submitted several times to Parliament, promised a satisfactory addition to the shelf space; but no steps have been taken to carry these plans into execution.

The binding of newspapers has become especially a source of trouble. The number of papers to be bound has increased beyond what seems reasonable, and the size of the principal journals has increased in many cases four-fold thus increasing the expense for binding, as well as requiring more space. On the other hand, the increase in the number of Provinces and in the numbers of representatives, and the multiplication of centres of publication, makes an increase in the number of periodicals, bound for preservation, inevitable.

Among the important additions which have been made to the section of American History, we may mention: 'Sketches of North America and the Oregon Territory,' by Captain H. Warre, A.D.C. to Sir R. D. Jackson, Late Commander of the Forces. Folio, beautifully illustrated with views of Vancouver, Fort Garry, &c., London, 1846. Also '*A catalogue of books relating to the Discovery and Early History of North and South America*,' forming part of the Library of E. D. Church, Esq., New York, 5 vols., 1909. This catalogue gives fac-similes of title pages and an accurate description of all the books mentioned in it, and is consequently very valuable to the purchaser of Rare Americana.

In connection with this subject, it may be mentioned here that the Librarians have been able to secure a large number of copies of old newspapers. This has enabled them to complete several series of the same, or replace bound copies which have been borrowed and lost.

During the past few years, the literary and historical annals of England and France have received, in unusually large numbers, most interesting contributions in the form of Memoirs, Souvenirs and Correspondence. The Librarians have acquired

copies of these precious collections, so important and so interesting from an historical point of view.

The card catalogue begun several years ago, has been continued during recess.

An extract of the Quebec law catalogue, giving the titles of all the codes of the Province of Quebec, commentaries with law periodicals bearing on the same, will be found annexed to the annual supplement.

The transactions of the numerous historical societies of Canada and the United States have been kept up to date, as much as possible. The value of the documents which they contain cannot be overestimated by the student of American History.

Among the valuable additions to the legal side of the Library may be mentioned the 'Legislation of the Empire, 1898-1907,' which is the result of the labours of the Society of comparative legislation, and will be found valuable by all who seek to know the laws of the remoter regions of the Empire.

A list of the English, French and American periodicals preserved in the Library is appended to the annual list of accessions.

The Statistics of the Library are, as usual, appended hereto.

The usual list of donations is also appended.

The annual catalogue is on print and will be distributed at any early day.

All of which is respectfully submitted.

A. D. De CELLES, *G.L.*
MARTIN J. GRIFFIN, *P.L.*

Library of Parliament,
November, 11th, 1909.

Library of Parliament,
Ottawa, November 11th, 1909.

Statement, classified by subjects, of the Expenditure on Books and Binding, from 1st January, to 11th November, 1909:—

Religion, Philosophy and Education	$ 469.59
History and Biography	2,175.29
Geography and Travels	725.69
Sciences	628.76
Useful Arts	465.69
Fine Arts	269.77
Sports and Games	25.56
Philology, Literary History, Bibliography, &c	631.45
Belles Lettres	1,127.77
Encyclopedias, Magazines, &c	1,439.26
Law, Constitutional History, Parliamentary Papers, &c	2,723.55
Political Economy, Social Science, Commerce, Statistics	970.63
Directories	206.52
Binding	2,141.77
Insurance, Commission, Postage, &c	655.07
	$14,656.37

SESSIONAL PAPER No. 33

DONATION LIST TO THE LIBRARY OF PARLAMENT, 1908-9.

From the Author, Alexander Gordon, Esq., M.A., Manchester:
Milton on the Son of God and the Holy Spirit, L., 1908.

From H. Crawford, Esq., St. Louis, U.S.A.:
A trip to Panama, by the Commercial Club of Boston, (and other cities) Illustrated.

From Jane (Miller) Fisher, London:
The Perfect Way, or Finding of Christ, by Messrs Kingsford and Maitland.

From the Author, S. M. Griswold, Esq., New York:
Sixty Years with Plymouth Church.

From F. G. Morley, Esq., Secretary Toronto Board of Trade:
Report of Canadian Board of Trade Commission to West Indies, 1907. Pamphlet. 5 copies.

From the Author, Hon. Pascal Poirier, Senator:
Des Acadienes déportér à Boston en 1755, 2 copies.

From B. Sulte, Esq., R.S.C., Ottawa:
Minnesota Historical Society Collection. Vols. 12, 13.
Wisconsin Historical Society Proceedings, 1906.

From the American Ethnological Society:
Transactions, vol. 3, part 1.
Jones, W., Fox Texts.

From Associated Board of Trade of Eastern British Columbia:
Proceedings, 1909. 5 copies.

From Baltimore Board of Trade:
Report, 1908.

From Bombay Chamber of Commerce:
Report, 1907.

From Boston Chamber of Commerce:
Report, 1908.

From Buffalo Chamber of Commerce:
Reports, 1907-8.

From the Canadian Club of Fort William:
Proceedings, 1908.

From the Canadian Club, Vancouver:
Proceedings, 1906-8.

From the Canadian Club, Winnipeg:
Proceedings, 1904 to 1908.

From Chicago Board of Trade:
Report, 1908.

From Deleware, Lackawana and Westrn Railway Company:
Report, 1908.

From Hunterian Museum, University of Glasgow:
Catalogue of Manuscripts in the Library, 1908.

From the Independent Order of Odd Fellows:
Report, 1908.

From the Department of Indian Affairs:
Paget, Mrs., People of the Plains.

From the Insurance Institute, Toronto:
Proceedings, 1908-9.

From the Imperial Consulate General of Japan, Ottawa:
The Exporter's Directory of Japan, 1908.
Useful Notes and Itineraries for Travelling in Japan. Pamphlet.

From the Residency General of Japan at Seoul:
Annual Report of Reforms and Progress in Korea, 1907.

From the University of Manitoba:
Examination Papers, 1909.

From Maryland Bureau of Statistics:
Report, 1908.

From the Government of Mauritius:
Notifications, 1908.

From Michigan United Railway Company:
Report, 1908.

From Minnesota Historical Society:
Collections, vols., 12, 13.

From Montreal Board of Trade:
Report, 1908.

From Montreal Harbour Commission:
Report for 1908. 6 copies.

From New York Chamber of Commerce:
Report, 1908-9.

From New York Produce Exchange:
Report, 1908-9.

From Northern Pacific Railway Company:
Report, 1909.

From University of Pennsylvania:
Archives. Vols. 8-15.
Catalogue, 1908-9.
The State at the Jamestown Exposition, 1907.
Miscellaneous Reports. Pamphlets. 1908-9.

From Queen's College and University:
Examination Papers, 1909.

From St. Louis Trade and Commerce Board:
Report, 1908.

From Vancouver Board of Trade:
Reports, 1907-1909.

From Victoria, B. C., Board of Trade:
Report, 1908.

From Victoria University, Toronto:
Calendar, 1908-9.

From Winnipeg Board of Trade:
Report for 1909.

From the Yorkshire Parish Register Society of England:
Parish Registers of Otley, County of York, England, 1563-1672. Part 1.

From the Government of Alberta:
Statutes, 1909.
Journals, 1909.
Official Gazette, 1909.

From the Government of Argentine Republic:
Message of the President to Congress, 1909.

From the Government of Australia:
Senate Journals, &c., 1907-8.
House of Representatives, Votes 1907-8.
Parliamentary Papers, 1907-8.
Debates. Vols. 36-48. 1907-8.

From the Government of Barbados:.
Blue-Book, 1908-9.

From the Government of British Columbia:
Statutes, 1909.
Official Gazette, 1909.
Journals of Assembly, 1909.

From the Government of British Honduras:
Ordinances, 1908.
Blue-Book, 1907.

From the Government of the Cape of Good Hope:
Acts, 1907-8.
Statutes of the Colony, 1652 to 1906. 5 vols.
Council, Reports of Committees, 1908.
Assembly, Reports of Committees, 1908
————Votes, 1908.
————Annexures, 1908.
British South African Statement of Trade and Shipping, 1907-8.
Civil Service List, 1909.

From the Government of Cyprus:
Compiled Laws to 1906.

From the Government of Grenada:
Handbook, 1909.
Ordinances, 1908.
Blue-Book, 1908.

From the Government of Illinois:
Illinois Historical Collection, vol. 4.

From the Imperial Government:
Statutes, 1908.
State Papers, vol. 98.
Lords' Journals. Vol. 140.
Commons Journals. Vol. 163.
Hansard, 1908-9.
Current Blue-Book, 1908-9.

From the Government of India:
Unrepealed General Acts, 1834-1897. 4th Edition. 3 vols.

From the Government of Indiana:
Message and Documents of Governor, 1905-1909.
Report Department Inspection, 1908.
————Public Instruction, 1908.
————Railroad Commission, 1908.

From the Government of Jamaica:
Handbook, 1909.

From the Government of the State of Kansas:
Laws, 1909.
Departmental Reports, 1907-8.
Labour Report, 1903-4; 1907-8.
Tax Commissioners Report, 1908.

From the Government of Manitoba:
Statutes, 1909.
Official Gazette, 1909.

From the Government of Massachusetts:
Acts, 1909.
Public Documents, 1907. 12 vols.
Law Reports. Vols. 198, 199.

From the Government of Montana:
Laws, 1909.

From the Government of Nebraska:
Laws, 1909.
Assembly Journals, 1908.
Official Gazette, 1909.

From the Government of New Brunswick:
Laws, 1909.

From the Government of New Foundland:
Acts, 1909.

From the Government of New Jersey:
Laws, 1909.
Senate Journals, 1909.
Legislative Documents, 1907.
Labour and Statistics Report, 1908.

From the Government of New South Wales:
Statutes, 1908.
Council Journal, 1907-8.
Assembly Votes, 1907-8.
Parliamentary Papers, 1907-8.
Debates. Vols. 30-32.

From the Government of New York:
Year Book of Legislation, 1907.
State Museum Report, 1907.
———— ——Proceedings, vol. 35.
————Engineer's Report, 1907.
————Education Report, 1909.
————Commission on Lunacy, 1907-8.
Senate Documents, 1904-1908. 56 vols.
Assembly Documents, 1904-1908. 68 vols.
Senate Journals, 1905-1908.
Assembly Journals, 1905-1908.

From the Government of New Zealand:
Statutes, 1908.
Council Journals, 1908.
House Journals, 1908.
Appendix to Journals, 1908. 6 vols.
Official Year Book, 1908.
Parliamentary Debates. Vols. 144-145.
Statistics, 1907.
Bulletin of Geology, No. 7.
University Calendar, 1909-10.

From Government of North Eastern Rhodesia:
Statute Law, 1907.

SESSIONAL PAPER No. 33

From the Government of Nova Scotia:
Laws, 1909.
Assembly Debates, 1909.
Official Gazette, 1909.
Nova Scotia Archives. Vol. 3.

From the Government of Ohio:
Senate Journals, 1908.
House Journals, 1908.
Appendix to Journals, 1908.
Executive Documents, 1907. 4 vols.
Departmental Reports, 1908-9. 15 vols.

From the Government of Ontario:
Statutes, 1909.
Assembly Journals, 1909.
Official Gazette, 1909.
Sessional Papers, 1908.
Hodgins, J. G., Documentary History of Education in Upper Canada. Vol. 27.
Financial Statement, 1906-1908.
Report, Bureau of Industries, 1907.

From the Government of the Orange Free State:
Standing Orders Legislative Assembly, 1908.

From the Government of Quebec:
Statutes, 1909.
Sessional Papers, 1908.
Official Gazette, 1909.

From the Government of Queensland:
Acts, 1908.
Parliamentary Debates. Vol. 102.

From the Government of St. Lucia:
Ordnances, 1908.

From the Government of Saskatchewan:
Statutes, 1908; 1908-9.
Journals, 1906-1908-9.
Official Gazette, 1909.

From the Government of Sierra Leone:
Ordnances, 1811-1898.

From the Government of South Australia:
Acts, 1908.
Handbook, 1907-8.

From the Government of South Carolina:
Acts, 1902-1909.
Code of Laws to 1902.

From the Government of South Nigeria:
Revised Laws to 1908.
Government Gazette, 1909
Financial Report, 1907.

From the Government of Tasmania:
Walch's Tasmania Almanac, 1909.

From the Government of the Transvaal:
Statutes, 1908.
Council Minutes and Proceedings, 1909.
Assembly Votes and Proceedings, 1909.
Annexures to Assembly Votes, 1909.
Administrative Proclamations, 1902-1908.
Current Blue-Books, 1909.

From the Government of Trinidad:
Blue-Book, 1908-9.
From the Government of Turks and Caicos Islands:
Revised Laws to 1908.
From the Government of the United States:
Senate Documents, 1906-7. 7 vols.
————— —————1907-8. 4 vols.
House Documents, 1906-7. 57 vols.
————— —————1907-8. 12 vols.
Senate Journals, 1908-9.
House Journals, 1908-9.
Congressional Record, 1909.
Abridgement of Documents, 1908.
Current Blue-Books, 1909.
Artillery (Mountain) Drill Regulations, 1908.
Blackburn, I. W., Illustrations of Morbid Anatomy of the Brain in Insane, 1908.
Century of Population in Growth of U. S., 1790-1900.
Coast and Geodetic Survey, 1905.
Consular Reports, 1908-9.
Courts-Martial Manual, 1908.
Customs Inspection, Regulations, &c., 1908.
Education Commissioners Reports, 1907-1908.
Firing Regulations, Small Arms, 1908.
Foreign Relations, 1906.
Inspector General's Department, Guide to, 1908.
International Code of Signals, 1909.
Interstate Commerce Commission Report, vol. 14.
Judge Advocate General. Digest of Opinions of, 1901.
Justice. Register of Department of. 1908.
Labour Laws of United States, 1907.
Life Saving Service Report, 1908.
National Board of Trade Report, 1909.
—————Museum Proceedings. Vol. 34.
Pacific Coast Pilot, 1909.
Railway Statistics Report, 1907.
Statistical Abstract, 1908.
Temperature Report, 1909.
Transportation by Water in United States, Report, 1909.
Treasury Decisions, 1908.
—————Report, 1909.
War Department Reports, 1908.
From the Government of Vermont:
Acts, 1908.
From the Government of Victoria:
Acts, 1908, 1909.
Assembly Papers, 1908.
—————Votes, 1909.
Debates, vols. 119, 120.
Yearbook, 1907-8.
From the Government of Wisconsin:
Laws, 1909.
From the Government of Wyoming:
Laws, 1909.
From the Government of the Yukon:
Ordinances, 1909.

NOTE.—For List of Copyrights see Canadian Patent Office Record.

REPORT

OF THE

MINISTER OF JUSTICE

AS TO

PENITENTIARIES OF CANADA

FOR THE

FISCAL YEAR ENDED MARCH 31

1909

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED FOR C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1909

[No. 34—1909.] *Price* 15 *cents.*

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To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom and a Baronet; Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, &c. &c., Governor General of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit herewith, for the information of Your Excellency, the Annual Report of the Inspectors of Penitentiaries for the fiscal year ended March 31st, 1909.

I have the honour to be,

Your Excellency's most obedient servant,

A. B. AYLESWORTH,

Minister of Justice.

DEPARTMENT OF JUSTICE,

OTTAWA, October 9th, 1909.

ANNUAL REPORT

OF THE

Inspectors of Penitentiaries

FOR THE

FISCAL YEAR, 1908-9

To the Honourable
A. B. Aylesworth, K. C.,
Minister of Justice.

Sir,—We have the honour to submit herewith reports and statistics with reference to the operation of the penitentiaries of Canada for the fiscal year ended March 31st., 1909.

POPULATION.

The average daily production population for the past five years has been as follows:—

1904–5	1,359
1905–6	1,407
1906–7	1,433
1907–8	1,418
1908–9	1,625

The average population during the past year shows an increase over the preceding year equal to 14.6 per cent.

The population at the close of the year was about 20 per cent greater than at the close of the preceding year. The increase at the several institutions has been as follows:—

Kingston	16.8 per cent
St. Vincent de Paul	27 "
Dorchester	4.5 "
Manitoba	20 "
British Columbia	34 "
Alberta	13.7 "

A noticeable feature of the returns is the large proportion of convicts received from urban centres as compared with rural districts. Montreal contributes seventy-seven per cent of the population of St. Vincent de Paul penitentiary; Winnipeg eighty per cent of that of Manitoba, and Vancouver alone has sent in forty per cent of the convicts at New Westminster. There is no perceptible increase of criminality in the rural districts.

MOVEMENT OF POPULATION.

	Kingston	St. Vincent de Paul.	Dorchester.	Manitoba.	British Columbia.	Alberta.	Totals.
In custody Apr. 1,'08	488	401	235	120	152	80	1,476
Received:							
From jails	228	276	119	71	109	58	861
Paroles forfeited	3	3	.....	2	.....	.....	8
Paroles revoked	.....	1	.....	2	.....	1	4
Recaptured	.....	.....	.....	2	4	.....	6
Transfers	14	.....	.....	.....	.....	1	15
Discharges:							
Expiry of sentence	92	107	48	24	18	2	291
Pardons	2	2	2	1	4	3	14
Paroles	59	42	54	21	28	40	244
Deaths	8	7	1	.....	4	1	21
Deportation	2	3	3	2	.....	3	13
Transfer	.....	10	.....	4	1	.....	15
Escapes	.....	.....	.....	1	3	.....	4
Order of Court	.....	.....	.....	.....	3	.....	3
In custody Mar. 31, 1909	570	510	246	144	204	91	1,765

In previous reports those who had escaped and were recaptured within the year were not shown. This year's returns show the total number of escapes and the total recaptures. The net result is the same. One convict who escaped during the year is still at large. Three convicts who escaped in previous years were recaptured. During the past ten years 19 escapes have occurred. Of this number 9 have been recaptured. Escapes are in all cases traceable to the negligence or inefficiency of surbordinate officers, or to the unwarranted disregard of the prison regulations by their superiors. We have no desire to apologize for the negligence that results in escape, or minimize the danger to society that follows, yet we have to draw attention to the fact that, every year, by our fixed sentence system, scores of equally dangerous criminals are automatically set free, to prey upon society, by the expiration of their sentences. Every week notorious and habitual criminals, who have evinced no intention of reform, are set free merely because the judge or magistrate has fixed the limit necessary for the protection of society in their cases. From our experience in the administration of penal institutions we are convinced that society would be more adequately protected by the application of indefinite sentences to habitual offenders. It seems to us that the existing system, that requires the exercise of omniscience on the part of human judges and has proved so ineffectual in results, should not be immune from amendment on account of its antiquity. The policy of adopting such change in the penal code is respectfully submitted for your consideration.

The gradual increase in the application of the parole system and corresponding decrease of the number of absolute pardons are shown in the following table:

	Paroles.	Pardons.
1899–0	71	70
1900–1	122	36
1901–2	157	43
1902–3	113	35
1903–4	122	31
1904–5	126	50
1905–6	179	36
1906–7	157	29
1907–8	215	29
1908–9	244	14

When the parole system was established it was criticized as a "dangerous innovation." After a years' experience this designation was modified to "doubtful experiment." Now, after a decade of operation, the wisdom and success of the system are fully recognized. An examination of the report of the Dominion Parole Officer (Appendix A.) will convince one that the application of this method of treatment is beyond doubt the most important and useful penological reform yet introduced in this country. The development of the system has been such that the work of efficient supervision is now too great for one officer and we respectfully suggest that the various provinces be requested to make immediate provision for the supervision of such as have been or shall be released on parole from provincial institutions. The supervision by the Dominion Parole Officer should be restricted to those released from the penitentiaries, if the best results are to be obtained.

Nationality.

The following table shows the origin as indicated by the country of birth,—

British:		
Canada	1,046	
England	199	
Scotland	34	
Ireland	54	
Other British countries	23	
		1,356
Foreign:		
United States	181	
Italy	71	
Russia	31	
Germany	27	
Austria	23	
France	19	
Denmark	15	
China	16	
Other foreign countries	26	
		409
		1,765

Canadian born constitute 59 per cent and foreigners 23 per cent. There are 66 life convicts, of whom 33 are confined at Kingston. Ten per cent are under 20 years of age. Fifteen per cent are unable to read or write. Seventeen per cent have been total abstainers and forty per cent have been intemperate.

CREEDS.

Roman Catholic	871	
Church of England	343	
Methodist	185	
Presbyterian	173	
Baptist	78	
Lutheran	41	
Other Christian denominations	12	
Hebrews	15	
Bhuddist	17	
Mormon	1	
Unitarian	1	
No creed	28	
		1,765

FINANCIAL.

	Gross Expenditure.	Revenue.	Net Expenditure.
Kingston	$ 164,120.87	$ 32,408.00	$ 131,712.87
St. Vincent de Paul	113,169.27	5,192.32	107,976.95
Dorchester	74,840.52	3,175.49	71,655.03
Manitoba	59,565.60	5,809.42	53,756.18
British Columbia	79,937.15	2,816.79	77,120.36
Alberta	47,802.61	1,034.79	46,767.82
	539,436.02	50,436.81	488,999.21

COMPARATIVE STATEMENT OF NET OUTLAY.

	1906–7 (9 months.)	1907–8	1908–9
Kingston	$ 71,059.90	$ 143,503.55	$ 131,712.87
St. Vincent de Paul	89,324.60	111,426.43	107,976.95
Dorchester	42,083.72	72,362.09	71,655.03
Manitoba	47,797.68	59,815.94	53,756.18
British Columbia	41,063.56	68,434.38	77,120.36
Alberta	36,085.35	44,963.48	46,767.82
	$ 327,414.81	$ 500,505.87	$ 488,999.21
Average daily population	1,433	1,418	1,620

COMPARATIVE STATEMENT OF OUTLAY PER CAPITA.

	Kingston.	St. Vincent de Paul.	Dorchester.	Manitoba.	British Columbia.	Alberta.
Staff	140.60	132.93	$ 172.89	$258.20	$ 182.11	$ 286.50
Maintenance of convicts	57.09	52.84	56.58	47.81	61.38	85.54
Discharge expenses	4.54	3.11	4.69	9.48	6.30	8.22
Working expenses	32.83	33.29	40.31	70.08	55.45	36.35
Industries	43.96	15.13	16.54	31.73	13.89	32.07
Lands, buildings and equipment	.91	21.00	31.44	42.49	123.70	88.20
Miscellaneous	1.69	1.73	1.44	10.80	6.38	15.04
	281.59	260.03	323.89	470.59	449.21	551.92
Deduct for revenue	60.58	11.34	13.23	45.03	15.83	12.03
Outlay per capita	$ 221.01	$ 248.69	$ 310.66	$ 425.56	$ 433.38	$ 539.89

OUTLAY PER CAPITA FOR PAST FIVE YEARS.

	1905.	1906.	1907. (9 months.)	1908.	1909.
Kingston	$ 209.45	$ 269.44	$ 220.58	$ 264.38	$ 221.01
St. Vincent de Paul	272.20	253.23	226.52	281.04	248.69
Dorchester	228.15	254.91	206.70	352.67	310.66
Manitoba	356.97	360.87	244.00	409.40	425.56
British Columbia	411.44	393.63	326.99	493.73	433.38
Alberta			980.39	637.08	539.89

Actual cost—

Supplies on hand April 1st., 1908		$185,584.00
Gross expenditure 1908–9		539,436.00
		$725,020.00
Deduct—		
Supplies on hand March 31st., 09	$199,333	
Approximate value of labour employed in providing revenue and on capital	75,000	
		274,333.00
Net actual cost		450,687.00
Cost per caput		277.35
Cost per caput per diem		.76

COMPARATIVE SUMMARY.

	1906–7. (9 months.)	1907–8.	1908–9.
Gross expenditure	$ 411,776.04	$ 584,061.92	$ 539,436.00
Net expenditure	327,414.81	500,505.87	488,999.00
Actual cost	387,295.00	477,499.00	450,687.00
Cost per caput	270.27	336.74	277.35
Cost per caput per diem	0.99	0.92	0.76
Average daily population	1,433	1,418	1,625

THE LABOUR PROBLEM.

The rapid increase in population intensifies the labour difficulty and makes it necessary to decide upon some solution without delay. The question of prison labour is not one of policy. Labour is imposed as a part of the sentence and is as obligatory as detention. The only question of policy involved is that of determining the kind of labour to be adopted. The work required to maintain the institutions provides employment for about one half the prison population. If the other half is to be employed, as the sentences require, what employment shall be adopted?

So far as we can see, there are but three courses open for consideration.

(1) To maintain the convicts in idleness or semi-idleness, in defiance of the sentence and at the expense of the taxpayers.

(2) To establish industries and dispose of the products on the open market.

(3) That the government shall utilize the labour of its wards in providing for its own requirements.

The objections to the first and second proposals are obvious, but we can see no valid or reasonable objection to the suggestion that articles required for the

various departments of the government should be provided by the labour of those who are maintained at public expense. In a previous report (1905) we called attention to the policy adopted by the Legislature of the State of New York and subsequently embodied in the constitution of that State.

We understand that the statute was drafted after consultation with, and with the concurrence of representatives of the manufacturing and labour interests and that its operation is entirely satisfactory to both.

The present condition of our penitentiaries makes the question an urgent one, and we respectfully submit it for your consideration.

We are, Sir,

Your obedient servants,

DOUGLAS STEWART,
G. W. DAWSON,

Inspectors.

OTTAWA, July 24th., 1909.

APPENDIX A.

DOMINION PAROLE OFFICER'S REPORT.

Ottawa, April 2nd., 1909

The Honourable A. B. Aylesworth, K.C.,
Minister of Justice,
Ottawa.

SIR,—I have the honour to submit to you the annual report on the parole system for the fiscal year ended March 31st., 1909.

PENITENTIARIES.

Number of prisoners relased on parole from		Kingston	59
"	"	St. Vincent de Paul	42
"	"	Dorchester	54
"	"	Manitoba	21
"	"	British Columbia	28
"	"	Alberta	40
			244

PROVINCIAL PRISONS, JAILS AND REFORMATORIES.

Number of prisoners released from		reformatories on parole	28
"	"	prisons	65
"	"	jails	131
			224
Total number of prisoners released on parole for year ended March 31st., 1909			468

REVOCATIONS AND FORFEITURES.

Number of licenses revoked for non-compliance with conditions	7	
Number of licenses forfeited by subsequent convictions	19	
Total concellations for the year ended March 31st., 1909		26
Total number of paroles completed during the year		348

TEN YEARS OPERATION AND RESULTS.

Synopsis of figures on the parole system, taken from the report of the Dominion Police Commissioner, since the inception of the Act 1899.

Total number of paroles granted during the ten years operation, from the penitentiaries	1,516	
Total number of paroles granted from prisons, jails and reformatories	999	
		2,515
Total number of licenses revoked for non-compliance with conditions	99	
Total number of licenses forfeited by subsequent convictions	54	
Total number of prisoners who have completed their sentences on parole	1,483	
Total number of prisoners now on parole, and reporting	879	
		2,515

During the past year I have made 17 visits to the various penitentiaries, 6 visits to reformatories and 22 visits to various jails in the interests of the parole system. I have also found employment for a large number of the men released on parole during the year. I find that the prisoners on parole are doing exceptionally well in conduct and industry. I have knowledge of only 4 prisoners who having completed their sentences on parole have returned to criminal ways during the past ten years.

I desire to acknowledge the continued courtesy of the wardens of the penitentiaries on my official visits, also that of the chiefs of police who have received the reports of the prisoners while on parole, and the co-operation of the various prison aid societies and the salvation army who have greatly helped to facilitate my efforts.

Humiliating as it may seem to confess it, the confession must be made, that, notwithstanding all our methods or codes of punishment, and all our philanthropic efforts for the reconstruction of the delinquent, society is still in a state of siege by a large and dangerous army of criminally disposed persons. If you doubt it, you have only to notice the bolts and bars on every hand, the police and the watchmen needed everywhere. After 4,000 years of social order of one kind or another, and after two thousand years of the propagation of Christian ethics, which, if ever universally adopted, would do away with everything criminal, it still remains a fact that those who have must still hold their possessions by the influence or the force of might. The "mailed fists" of Governments are necessarily held over every home and trust in the civilized world, and it must be so far many centuries to come.

PRACTICALLY PERMANENT.

All things considered, the delinquent and the criminal problem may be looked upon as practically permanent and certainly we have none more complex and important. The question is a vital one, when considering the protection of the law-abiding portion of a community from the portion of society which is disposed to prey upon it. The most desirable thing to do is to get rid of crime itself, either by transforming the law-breaker into a law-defender, or, better still, by preventing the citizen or child from ever becoming a criminal. The possible prevention of crime is a subject by itself, and the possible reformation of the criminal is another, but the prime object of the law, thus far, is founded on the protection of society itself. It is this object which underlies all sound legislation, and judgments given. It is this consideration which compels the judge to turn away his eyes from the suffering of the individual offender, and even from the greater suffering which generally falls upon the family or friends, and to keep his eyes fixed on the thousands of innocent people whose safety demands that the consequences of law-breaking must be more painful. I do not believe in taking an attitude toward the violators of law, young or old, which would lead them to look upon their offence as a trivial matter, or encourage them to look upon themselves as the victims of wrongs or oppression, or upon Governments as their debtors, but I do believe in taking a passionless, patient and impartial attitude toward them, making it as easy as possible for all offenders to do right, and as difficult as possible for them to commit a criminal act, keeping well before them the prospect of redeeming themselves, and that they have within themselves, to a great extent, their own destiny.

ONE OF THE RULING FACTORS.

One of the ruling factors of our age is that of evolution, the idea that in the lowest forms of life there exists the promise or potency of the higher forms. It is the capacity of betterment which redeems human nature from its littleness and its meanness, and this principle should be remembered in our treatment of the delinquent classes, for they have been, generally, the victims of neglect, and have been

soured and broken in their youth, and notwithstanding all our advanced systems, they generally feel that the great forces of our civilization are against them.

The causes of social disorders, the relationship between pauperism and crime, the better housing of the poor, the child-placing from the crowded and congested slums of our larger cities, are all vital questions, and they are having the serious conderation of the best thinking people from the Atlantic to the Pacific coast.

For a number of years the inspectors have called attention the great percentage of youths who have been sent to the penitentiaries for offences which do not demand a treatment of this kind The Juvenile Delinquent's Act will when universally adopted do away with this great wrong, and provide a sane method in restoring the youthful delinquents to good citizenship. It is a source of gratitude to know that the percentage of youths in the penitentiaries is steadily decreasing, and we hope the time will soon come when a mere child cannot be found within the walls of a penitentiary in the Dominion. The parole system has been the means of liberation of a number of this class with excellent results. It is altogether unnecessary to draw a contrast between the systems under the old regime in the treatment of Juvenile delinquents and the new. While we realize a great obligation to the discharged prisoner, we must also give attention to the possible criminal looking out upon a new world through the eyes of innocent childhood.

Under the new Juvenile Delinquent's Act we shall protect the boy or girl, young in crime, but still plastic in character, from being caught by the arm of the law and coupled wrist to wrist with the recidivist criminal stained with thirty or forty years of crime, and breathing corruption with every breath, as they have been hurried off together in the black van attending the jails and police courts in many of our Canadian cities under the old system.

PRODUCING EXCELLENT RESULTS.

The adoption of the Juvenile Delinquents' Act, passed by the Federal Government last year, is already producing excellent results. Manitoba is the first Province to enter under this new system. The City of Hull and district have made application and Ottawa district is also falling into line. The Provinces of Alberta, Saskatchewan, and British Columbia, are appointing probation officers. Quebec, also, is inquiring into this system, and we hope that within a few years every Province will avail itself of this Act. The conditions of the Act are as follows:—

(1) That a proper detention home has been established, and will be maintained, for the temporary confinement of juvenile delinquents, or children charged with delinquency. The institution must be conducted more like a family home than like a penal institution, and must not be under the same roof as, or in the immediate vicinity of any police station, jail, lock-up, or other place in which adults are confined or may be imprisoned. (See Section 11).

(2) That an Industrial School, as defined by Clause H of Section 2 of the Act, exists, to which juvenile delinquents may be committed.

(3) That there is a judge or magistrate having jurisdiction in the city, town, or other portion of a province, in which it is sought to have the Act put in force, and willing to act as Juvenile Court Judge (if any), provided for without recourse to the Federal authorities.

(4) That remuneration for an adequate staff of probation officers has been provided for by municipal grant, public subscription or otherwise. (See Sections 25, 26, 27, and 28, of the Act).

(5) That some society or committee is ready and willing to act as a Juvenile Court Committee. (See Sections 23 and 24 of the Act).

THE NEW ORDER OF THINGS.

I had the privilege of examining the organization of this movement in Manitoba last January, and report to you how the system is working out. Out of 196 cases

of juvenile delinquency, (children under 16 years of age) only two had proved unsatisfactory cases. The Honourable Mr. Daly, the Juvenile Court Judge, informed me that the new system had reduced the number of juvenile delinquents in the Court over 50 per cent for the past year. This is an evidence of what we hope for and expect, not only in Manitoba, but in the other provinces, when the system is completed.

Under the Juvenile Delinquents' Act no children under 16 can be classified as criminals, or placed under arrest in a jail or lock-up and brought before a police court, or herded together with other criminals. The method is humane and sane.

THE GREAT PROBLEM.

The great problem of juvenile delinquency cannot be considered apart from environment. It is impossible to adequately judge any child who commits an offence apart from its surroundings, and especially from what they generally term "home". A great majority of delinquents who find their way into the hands of law may be traced back to the miserable alleys and hovels which exist in our larger Canadian cities, a standing reproach to our twentieth century civilization. No one who knows how these children live can wonder at their offences against society. While we are striving in the name of a common humanity for many reforms, juvenile courts, probation and reformatory movements, all virtually essential for our common good, let us not neglect to use every influence within our reach to remove, as far as possible, these breeding places of vice and criminal spawn, and establish in their place clean and wholesome dwellings. Let us throw the dark alley open to the light of the day. Let us plant trees and open up children' play-grounds where they are most needed, and give our down-trodden poor a few breathing places, made wholesome and beautiful with sun, air and flowers all of which appeal to the better instincts of the child, or the parent, compelled to live under unfavourable circumstances.

PROBLEM OF THE SLUM.

Canada must never cultivate the slum, if our efforts are going to be effectual in keeping down the criminal population to a minimum. I have often wondered at our city authorities spending so lavishly to make the splendid avenue look better than ever, while so little attention is given to the dark, unwholesome places where the unfortunate and the erring are compelled to exist, and consequently suffer.

NATAL DEFECTS IN CHILDREN.

If we are obliged to admit natal defects in children, are we not also obliged to admit natal excellencies? But natal defects may be eracdicated and destroyed, and so indeed may natal excellencies. Children may posess criminal tendencies, but these criminal tendencies may be destroyed by a proper "home care" or environment, for they have no such fibres or roots that they reach from the cradle to the grave. Children may possess the dispositions or tendencies of angels, but these tendencies have no such roots or fibres as to defy extinction. The social conditions which are competent to uproot the vicious intincts of the delinquents are also competent to firmly root the dispositions which are not vicious, but full of virtue and truth. I firmly believe that there is nothing found in youth of a criminal tendency natal or acquired, which, with proper treatment, may not only be minimized, but in many cases may be wholly destroyed.

Ruskin says, "The true history of a nation is not in its wars, but in its homes, and household; the hope of the world lies with the children."

Respectfully submitted,

W. P. ARCHIBALD,
Dominion Parole Officer.

APPENDIX B.

WARDENS' REPORTS

KINGSTON.

KINGSTON, ONT., June 23rd, 1909.

SIRS,—I have the honor the forward reports and statistical returns from the several departments of the Kingston penitentiary for the fiscal year ended March 31st., 1909.

Yours respectfully,
J. M. PLATT,
Warden.

The Inspectors of Penitentiaries, Ottawa.

ST. VINCENT DE PAUL.

ST. VINCENT DE PAUL PENITENTIARY, April 1st., 1909.

The Inspectors of Penitentiaries,
Ottawa,

SIRS;—I have the honour to submit to you my sixth annual report for the fiscal year ended the March 31st., 1909, and the usual statistical statements of the different departments of the St. Vincent de Paul penitentiary.

Population remaining at midnight, March 31st., 1908..	401	
Received during the year.....	276	
		677
Discharged by expiry of sentence.....	107	
" pardon.....	2	
" parole.....	42	
" transfer.....	6	
" death.....	7	
" deportation.....	3	
	——	167
Remaining March 31st., 1909.....		510

Increase of population.—I would draw your attention to the fact that our increase in population does not come from the foreign nationalities; the convicts received during the year of foreign nationality averaged about the same in number as in preceding years. The surplus is from different parts of the Dominion, principally the province of Quebec. A certain number are recidivists, but the largest proportion are young men from sixteen to twenty years of age, a very large number of whom have previously served a term in the reformatory or in the common jails of the various parts of the province.

Without continued care and surveillance the young men living in the large centres are in great danger so far as their moral conduct is affected, because they are surrounded by other young men who by disposition and character are very often more inclined to idleness and vice than to regular hours and work.

And I affirm that the largest number of those we have received were already victims to intemperance, and worse still to the morphine habit, which is the explanation of the causes for most of them being here.

At present the penitentiary is so over crowded that I have been obliged to convert the hospital and the adjoining room into dormitories, removing the convicts

who were sick, to a room upon the third floor which had always been reserved for contagious diseases. The convicts transferred to these dormitories are those with sentences which are about to expire and whose conduct has always been of the best.

Discipline.—The conduct of the convicts during the year has been most satisfactory, as also the work performed by them. The younger men who may desire to learn a trade, which they are always advised to do, have the advantages of doing so and learning under the guidance of most competent instructors.

It is a great advantage for these young men who are thereby placed in a position to honourably earn their living after they leave here, providing the punishment undergone has served the purpose of reforming them. As a general rule the convicts are very attentive to their work, very polite and devoted to their instructors, as well as to the chief officers and staff of the institution.

Farm.—In the opening of the season the temperature was very favorable for the farm products and we had hoped for a very satisfactory crop; the grains, vegetables, and hay all having a very healthy appearance. Unfortunately the prolonged dry weather we had in June and July, with the extreme heat, burned up almost everything in the fields, causing a most unsatisfactory result. This obliged us to purchase grain, potatoes, straw, etc., during the year to an extent more or less considerable.

We are well prepared this year to obtain good results, and, if the weather is at all favorable we should obtain crops which will greatly recompense us for the poor years in the past.

Quarry, buildings and construction.—Last year we quarried an extraordinary large quantity of stone, all of which has been cut and prepared during the summer and winter for use in the construction of the hospital and the new residence for the warden.

The foundation for the hospital building has been completed and we intend to continue the work at the very earliest possible moment. I have good hopes of having the roof completed this autumn; during the winter the interior work will be executed as quickly as possible.

During the summer the balance of the stone required for the construction of the residence for the warden will be prepared as also the doors, windows, etc. The work of the building will commence at the earliest date possible in the spring 1910 and should be all completed by the autumn. The house is to be constructed of rock face stone, the exterior as well as the interior will leave nothing to be desired.

In view of the increase in our population it is necessary at present to construct temporary cells. The most convenient location as well as the safest, is in the building intended for the vehicles, where we will have sufficient space to erect seventy two cells. Considering the urgent need for them we are commencing the work immediately and believe they will be ready for occupation during the month of May.

We have commenced the work of reconstruction of the north wing. When the old wing has been demolished and rebuilt with the new addition, we will have one hundred and twenty-five additional cells, which will give us a total of six hundred and three. These cells will be so built as to give the greatest possible comfort, particularly with regard to the hygienic conditions. This change will require a very extensive amount of work and will not be completed for two years, and possibly longer.

Conforming with the instructions of the architect we placed iron straps through the corners of the walls of the dome at a height of 95 feet, in order to bind and strengthen them. Notwithstanding the height of the scaffolding the work was completed without accident of any kind.

A new wing was constructed to the piggery, 30′ 5″ in width by 100′ long, making the total length of this building 224 feet. The whole is very substantial

and is now giving entire satisfaction. A shed was built for use in the summer and for feeding purposes. The temporary building in use during the erection of the new structure was removed to the brickyard, where it has been utilised for storage of the 224,000 bricks made last season.

A stone wall, cutting off a portion of the old kitchen, preparatory to construction of the new north wing is now well under way by the masons.

The storehouse for the steward's department has been removed to another part of the basement, which was put into good condition, whitewashed, painted and electrically fitted.

Wire screens have been placed upon all the windows of the kitchen and passage.

Work upon the terrace at the deputy warden's quarters was continued; but dry weather prevented obtaining the necessary sodding and has delayed the completing of the work.

A very considerable improvement has been made in the prison yard. The greater portion is now leveled and covered with fine gravel and two large flower plots made with cut stone border.

The chief trade instructor's office in the new shops, has been completed, with telephone and electric fittings installed.

The old frame buildings used for store-house, ice house and chief trade instructor's office have been removed.

The stonecutters have been busy preparing the stone for the new hospital, north wing and warden's residence.

The blacksmiths, in addition to the general repairs, have completed 100 barrier doors for the new north wing, and 23 polished barrier doors for the new hospital. They are now working to complete the 80 additional doors required for the north wing and the barrier windows for the hospital.

The wooden floor in the engine room has been replaced by concrete.

The tin roof over the boiler house, which had rotted away, was replaced by concrete and has proved very satisfactory.

The interior of the old bakery room has been altered; some temporary brick walls and the oven removed, the whole place cleaned, painted, whitewashed and fitted up for use as the change room with the washing machine and drying rack transferred there.

A kiln dryer was built in the carpenter shop for drying lumber when required for special work.

The rear wall of the engineer's house which was in very bad condition bas been rebuilt and the roof, windows and plastering repaired.

The guard pier for the protection of the aqueduct building has been all renewed, the old one having rotted and washed away.

The space devoted to the book bindery has been enlarged and two new presses added to the equipment.

The old furnaces were condemned and have been replaced by new ones and the furnace room restored and whitewashed.

The plot of land in use for the protestant cemetery was levelled and fenced.

Repairs were made to the lumber shed and the roof of the stone barn.

The sheds at the brickyard were repaired and the drying racks covered with old tin.

Conclusion.—In conclusion I desire to express my sincere thanks to yourselves for the uniform kindness and courtesy which you have at all times extended to me, and also for the valuable assistance which you so often rendered me in the performance of my duties.

I also express my thanks to my deputy and my chief keeper for their loyal assistance, and thank the general staff of the institution for the respect and devotedness which they have accorded me in the discharge of my duties.

Yours respectfully,

OSCAR BEAUCHAMP,

Warden.

DORCHESTER.

DORCHESTER, N.B., June, 1909.

The Inspectors of Penitentiaries,
Ottawa.

SIRS,—I have the honour to submit my report, consisting of statistical tables and reports of the various officers of the Dorchester penitentiary, for the year ended March 31st., 1909.

There were remaining at midnight on March 31st., 1908, 220 males and 15 female prisoners, a total of 235.

There were received from common jails 112 males and 7 females, a total of 119.

And there were discharged, by expiration of sentence, 45 males and 3 females; by parole, 53 males and 1 female; by pardon, 2 males; by deportation, 3 males and by death 1 female, a total of 108; leaving a total of 246 convicts at the 31st., March, 1909.

The daily average was 240 as against 211 the previous year.

The conduct and industry of the convicts have been fairly good as is evidenced by the amount of work performed in erecting the new stone building, repairing the cottages, cultivating the extensive farm, and carrying on the numerous industries in connection with the prison.

The marsh land purchased last spring is a splendid addition to the farm as besides yielding annually over 50 tons of hay it gives access to tide water and a valuable mud privilege.

The farm crops last year were excellent, and the farm instructor will no doubt be able to show a good credit balance.

The discipline of the prison has been good and the officers as a whole have been faithful in the discharge of their duties.

I have the honour to be,

Sirs,

Your obedient servant,

J. A. KIRK,

Warden.

MANITOBA.

STONY MOUNTAIN, Manitoba, June 4th, 1909.

The Inspectors of Penitentiaries,
Ottawa.

SIRS,—I have the honour to submit my report together with crime statistics and other reports, in connection with this penitentiary, for the fiscal year ended March 31st., 1909.

Remaining at midnight, March 31, 1908		120
Received since—		
From common jails	71	
Forfeiture of license	2	
Revocation of license	2	
Recaptures (escaped in 1905 & 1908)	2	
		77
		197
Discharged—		
By expiration of sentence	24	
" pardon	1	
" parole	21	
" escape (recaptured)	1	
" deportation	2	
" transfer to Kingston penitentiary	4	
		53
Remaining at midnight, March 31, 1909		144

The daily average for the year was 129, as against 140 for the previous year.

A large volume of work has been done during the fiscal year both in bringing to completion extensions and improvements previously begun and in going on with buildings which are still in hand.

New shops:—On June 23rd, 1908, we started on the stonework for foundation, being an addition of 150 feet long and 39 feet wide, and have now got the brickwork of this building completed to the top of the rafters and the roof also sheeted ready for the pitch and gravel. We have also built in the basement a cement cistern, 36 feet x 60 feet x 7 feet deep.

This building will be used for carpenter, painter, blacksmith and machine shops, and the whole of the work is now in such shape that we shall be enabled to make an early start on the same this spring.

Warden's quarters.—This building was in very bad repair, having been so long vacant. The basement floor had all to be taken up, the joists being rotten and of no use. The space under the joists were filled with broken stone and finished with a covering of cement; the outside walls had to be re-strapped, lathed and plastered and the soil-pipe from basement to cesspool was repaired.

All the outside walls on ground and second floors were re-strapped, lathed and plastered over the old plaster. A partition was put across the large room on the ground floor, with sliding doors, making two rooms out of one. The interior of the building was painted, papered and kalsomined. Three storm porches were built and a new heating plant installed.

Chaplain's quarters.—Several repairs were required in this building. The basement floors were taken out and new joists and new floors put down; the outside wall in basement was re-strapped, lathed and plastered; the walls on ground and first floors were all re-strapped, lathed and plastered; all the interior was painted, papered and kalsomined, as required, and new steps were built to the main entrance.

Accountant's quarters.—The north-west room in basement was re-floored and new joists laid; wall in basement was re-scrapped, lathed and plastered; interior, where required, was painted, papered and kalsomined and new steps were built to the main entrance.

Hospital alterations.—Eight old cells were converted into four by taking down partitions, the whole of the front portion being closed with iron barriers, the ceiling supported by one 6." I beam on cast-iron columns, and all walls and castings painted.

Rooms over accountant's office.—These rooms were all repainted and kalsomined as well as the stairs leading from the ground to first floor. The stairs leading from first floor to the attic were taken down and the ceilings and floors repaired, making access to attic by main-hall stairs only.

Brick industry.—We burnt two kilns of brick last season, turning out 200,000 good and complete bricks; and the mason's department has been busy throughout the winter cutting stone for the boundary wall.

The tailor and shoe shops have been constantly occupied and have turned out a large amount of work, which has been performed in a most satisfactory manner.

As shown by the farm instructor's report, the yield from crops was a good one and, in this connection, I would respectfully urge the importance of increasing our farm acreage—the farm work has many commendable features, being most conducive to the general health of those thus employed—as well as productive of the fullest returns for the labour expended. The soil being rich and the lay of the land such as to afford an unobstructed view on all sides would, I am convinced, warrant more extensive farming, which would result profitably in every way.

I would recommend that a building, to be fitted as a gymnasium be erected quite separately from our other buildings. It is almost essential that guards, whose duty is almost constantly that of supervising large numbers of prisoners whose work keeps them muscularly powerful, should themselves be given every opportunity to indulge in physical exercise. A reading room might be provided in the same building as I consider a reading-room in a building occupied by the prisoners detracts largely from our discipline. This building need not be large nor expensive in structure.

I have the honour to be,

Sirs,

Your obedient servant,

A. G. IRVINE,

Warden.

BRITISH COLUMBIA.

SAPPERTON, B.C., April 1st, 1909.

SIRS:—I have the honour to submit my annual report with statistical and other statements from the different departments of the British Columbia penitentiary.

In my report last year, I noted that the increase in prison population had been larger than in any other year since this penitentiary was opened, and expressed a fear that the rate of increase would rise rather than fall. I am sorry to say that the anticipation has been realized. The increase last year exceeded that of any previous year by twenty-five, and this year again shows an increase of twenty-seven over last year, in the number of prisoners received. This rapid increase, with a more than corresponding increase in the percentage of men properly classed as criminals, has made the management of the penitentiary a more difficult matter than it otherwise would have been, as the improvements designed to bring the prison into proper condition for the safe-keeping of the class of criminals referred to, are not yet advanced to the point of efficiency.

Fair progress has however been made in the work. The new industrial building partially occupied at the time of my last report, was completed before the fall rains set in, so that we were enabled during the winter and spring to demolish the old wooden buildings which were a constant menace to the safety of the prison, and we were also able to make a start upon the building of the enclosing wall which when completed, will make escapes much more difficult.

A number of attempts at escape have been made during the year and one of these was successful, the escaping convict being still at large. On the other hand two convicts who escaped in 1907 have been recaptured. Once outside the walls, a convict has many chances of making good his escape, and the knowledge of this amongst the prisoners, together with the fact that the formation of the ground is such that each of our sentinels sees only a comparatively small part of the enclosing wall, is a standing temptation to convicts to attempt to escape.

Two convicts committed suicide during the year. One was a chronic invalid of weak mind and despondent temper, but in the other case, no cause could be assigned.

There is a paragraph in Warden Irvine's report for last year, which I quote:

"I would respectfully suggest that some change be made in respect to prisoners sentenced by the court to be flogged. I feel convinced that, to serve the purpose for which it was imposed, it should be administered as soon as possible after sentence has been passed, at the nearest common jail to the place wherein the crime has been committed, and not in the penitentiary, a long time after the prisoner's incarceration, by officers unfamiliar with the facts surrounding the case."

I beg to express my hearty concurrence in the suggestion, and to add to it my own opinion that flogging, if it is to be useful as a deterrent, should be at least as public as the execution of a death sentence; and further, to point out the impolicy of compelling an officer to incur the special personal enmity of a criminal with whom he must come in daily contact for years.

The conduct of the officers during the year, has, on the whole, been satisfactory but the rapid expansion of industrial development in the province, makes it increasingly difficult to hold the younger officers who find many opportunities of employment at a higher rate of remuneration, and this results in the presence on the staff of a number of inexperienced men.

In conclusion, I may be permitted to bear testimony to the good work done in aiding and counselling discharged prisoners by Staff Captain Collier, who is in charge of that department of the work of the Salvation Army in Vancouver.

JOHN C. BROWN,
Warden.

The Inspectors of Penitentiaries,
Ottawa.

ALBERTA.

EDMONTON, ALTA., April 7th, 1909.

Inspectors of Penitentiaries,
Ottawa.

SIRS:—I have the honour to submit my annual report embracing detailed reports from the various departments of the Alberta penitentiary, together with statistical statements which contain a full and accurate account of the institution for the twelve months ended March 31st., 1909.

During the past year extensive improvements have been made including the following. The completion of the extension to the original building, the basement of which contains the bakery, flour and bread room; the ground floor, space for a library and ward to connect with hospital; the first floor, a ward room for female convicts and a barber shop; and the second floor is divided into six rooms. This building is absolutely fire-proof and would be a credit to any institution. Work was also begun on the central hall building, sixty-five feet square, of which the foundation and ground floor are in and the walls up twenty-seven feet. This building will be completed this summer and will have a splendid appearance. Great praise is due to the chief trade instructor for his excellent work.

We have made over 400,000 brick and have on hand about 200,000 ready for this summer's work. There are also about 500 yards of sand and gravel screened in the yard.

The farm has proved very successful. Enough potatoes, turnips and other vegetables were grown to supply the penitentiary, besides hay and green feed for the horses.

In addition to this the wood has been cut and the brush off eight acres of land, the wood to be used for burning brick. Our coal for the past year cost us about $1,400. We have opened up a drift about 150 feet and will strike coal at about thirty feet more and will be able to furnish our own coal for the present year. All work has been done by convict labour.

No accidents occurred during the year and the health of the convicts has been good.

I am pleased to say that there were no escapes and that the discipline of the institution has been entirely satisfactory.

Great credit is due to the deputy warden for his constant and untiring supervision; to the officers under him for maintaining discipline while getting the best work out of those in their respective charges.

I am pleased to say that not a single complaint has been received from the female ward, and that the matron merits every commendation for her able and efficient management of it and for its splendid appearance and the good work done there.

I regret to say that, as in the previous year, some of our best trained officers have been lost on account of higher wages paid elsewhere.

I have the honour to be,
Sirs,
Your obedient servant,

M. McCAULEY,
Warden.

APPENDIX C.

SURGEONS' REPORTS

KINGSTON.

To the Warden:

I beg to submit herewith my regular annual report of the medical department of the Kingston penitentiary for the year ending March 31, 1909.

Outside of the usual subjects which are taken up in the reports generally, there has been nothing of any note to comment upon during the year. This report, therefore, will vary slightly from previous reports, with the exception of that which must materially follow the increase in the average and total population.

The hospital, as usual, has been kept in the best possible condition and always ready for the reception of patients. It has been renovated during the past month, and always presents as bright and healthful appearance as it is possible to have. Directions for the sick have been assiduously carried out by the hospital overseers; and the dietary, which forms one of the most essential features in the treatment of disease, was prepared with the care necessary to suit each individual case. When indicated, hospital comforts have been generously supplied to those suffering from prolonged debilitating diseases.

There were received into the hospital for treatment four hundred and thirty-three (433) patients, making five thousand, two hundred and sixty (5,260) days in hospital. According to prescriptions on the register, seven thousand nine hundred and thirty-two (7,932) received dispensary treatment, making the aggregate number of those for whom treatment was prescribed during the year, eight thousand, three hundred and sixty-five (8,365).

The sanitary condition of the prison has been excellent and cleanliness appears to prevail everywhere. La grippe paid us its annual visitation, and the officers as well as the prisoners suffered severely from its effects. The disease is a most trying one and leaves the system so undermined, and the vital resistance of the organism so weakened, that it is readily susceptible to the invasion of other diseases.

The heating arrangements have been all that could be desired and the health and comfort of the prisoners were well looked after in these matters.

The food has been of a very good quality, and sufficiently abundant to each prisoner to maintain his bodily requirements. On several occasions diarrhoea disorders amongst the prisoners appeared to be attributed to the food: but on investigation it was found that they could not be attributed to it. Attacks of intestinal derangements make their appearance periodically in institutions, apparently without any known cause, and often occur so frequently as to be designated "institutional." It is evidently a wise provision of nature to get rid of offensive and poisonous materials which, if retained within the system would produce dangerous symptoms.

The usual amount of sickness prevailed amongst the officers, many of whom were invalided for lengthened periods owing to serious disease. There were 128 cases of sickness by officers. To these officers I made twelve hundred and eighteen (1,218) visits. Amongst the most serious diseases, seven had typhoid fever (the disease having almost reached the epidemic stage in the city), seven had pneumomia, thirty-three bronchitis, one appendicitis, and one diphtheria. Besides the prescriptions for the regular hospital dispensary patients, female and insane wards, the hospital overseers prepared for the officers alone six hundred and ninety (690) prescriptions.

There were no infectious diseases amongst us for the past year. Small-pox, which prevailed to such an extent in the city as to have reached the epidemic stage, many cases also being in the village of Portsmouth—came in such contiguity to the

prison walls as to endanger the health of the prisoners and officers, the family of one of the officers having suffered severely from the scourge, necessitated on November 7th., the following recommendations:

"In view of the prevelance of small-pox in the city where it has now reached the epidemic stage, I recommend that a rigid observance regarding the exclusion of visitors or friends of the prisoners be enforced so long as the medical officer states that the disease exists in the city or there is danger of infection.

Extra precautions be observed regarding the cleanliness, and disinfection with disinfectant fiuid of all parts of the prison particularly the closets in the dormitories and those in the other parts of the prison, into which once each week not less than four ounces of the fluid should be thrown.

Dusting operations be performed with cloths moistened with a solution of disinfectant fluid; in no case can the use of dry dusting be recommended, as it only means the transference of dust and germs from one place to another;

Not less than ten ounces of sulphur be burnt in a water bath once each week in the change-room, tailor-shop, and in the store-room or storekeeper's department so that the clothing which are the most ready means for carrying infection may be rendered sterile.

Any suspicious skin affection existing in the family of an officer be at once reported so that information regarding its nature may be elicited from the medical health officer or the medical attendant, and proper precautions taken, if deeemd necessary.

The isolation pest-house on the prison reserve be at once placed in such a condition that it may be ready at any time for use; a general cleaning up being all that is required.

All letters, magazines, books, etc., coming through the mail be fumigated, as per directions on a former occasion.

All officers who have not been vaccinated, be vaccinated at once. There are at present two officers without a satisfactory scar.

The necessity and desirability of making these recommendations, which may be considered in force till the medical health officer of the Kingston district declares all danger over, are now obvious, and are in line with the advanced teachings of modern medicine."

I am glad to say that these recommendaions were rigidly carried out, thereby preventing what might easily have become a wide-spread and disastrous epidemic of this loathsome disease in the prison. The public mind is now only beginning to grasp the principle that various infectious diseases may be to a certain extent prevented if proper measures are enforced, and the directions of those so qualified by training, education and experience as to understand the requirements of scientific hygiene carried out, and that the intelligent expenditure of means toward this end is the surest and wisest economy.

Insane Ward.—This ward as usual has been looked after carefully and its sanitary condition has been satisfactory. The inmates have been made very comfortable. There have been some transfers from other institutions to this ward, nearly all of whom were discharged into the general prison as their mental condition did not appear to be of such a nature as to justify detention in this ward. They were more incorrigible than demented, and were fit subjects for isolation.

Female Ward.—The Matron and assistant keep this department in a good sanitary condition, and the inmates enjoy good health as a rule. Though a few serious cases required attention, minor complaints appear to be the prevailing one. One prisoner died of cancer of the stomach, after a lignering illness.

There was no accident amongst the prisoners during the year. The usual returns of the hospital overseers are transmitted herewith.

DANIEL PHELAN, M.D.,
Surgeon.

STATEMENT OF EXPENDITURE FOR DRUGS AND MEDICINES.

Stock on hand March 31, 1908	$ 295.64	
Drugs and Medecines purchased	554.58	
		$ 850.22
Drugs on hand March 31, 1909	338.94	
Received for medecines supplied officers	114.11	
		453.05
Net expenditure for drugs		$ 397.17
Per capita cost		0.74

RETURN of sick treated in hospital from April 1, 1908, to March 31, 1909.

	Remained.	Admitted.	Total.	Died.	Discharged.	Remaining.
Abrasion		1	1		1	
Abscess		11	11		11	
" of liver		1	1			1
Asthma		1	1		1	
Bronchitis	3	71	74		71	3
Bullet wound		1	1			1
Burn		1	1		1	
Carcinoma	1	1	2	1	1	
Cephalalyia		1	1		1	
Chorea	1		1	1		
Cirrhosis liver		1	1	1		
Colic		11	11		11	
Constipation		19	19		19	
Contusion		12	12		12	
Cystitis		1	1		1	
Debility	3	33	36		33	3
Delirium tremens		1	1		1	
Diarrhoea		23	23		22	1
Dysentery		4	4		4	
Ecchymosis		2	2		2	
Eczema		2	2		2	
Epilepsy		1	1			1
Febricula	1	5	6		6	
Fever		5	5		3	2
Furunculus		4	4		4	
Goitre		1	1		1	
Gonorrhœa		2	2		2	
Hæmaturia		1	1		1	
Hæmoptysis	1	4	5	1	4	
Hæmorrhoids		6	6		6	
Heart disease		17	17		17	
Hernia		1	1		1	
Indigestion	2	34	36		36	
Influenza		33	33		30	3
Injury to eye	1		1		1	
Insomnia		1	1		1	
Lumbago		12	12		11	1
Malingering		9	9		9	
Mania		1	1		1	
Marasmus		1	1	1		
Migraine		5	5		5	
Neuralgia		2	2		2	
Ophthalmia		5	5		5	
Orchitis		1	1		1	
Paralysis		1	1		1	
Paresis		1	1		1	
Phthisis		2	2			2
Pneumonia	2	3	5		4	1
Retention		4	4		3	1
Rheumatism	1	32	33		33	
Sciaticia		1	1		1	
Scleritis	2	2	4		4	
Spermatorrhœa		1	1		1	
Strain		3	3		3	
Stricture	1	1	2		2	
Syncope		1	1		1	
Synovitis		1	1		1	
Tonsillitis		8	8		8	
Vaccinia		21	21		21	
Wound		2	2		2	
	19	433	452	5	427	20

RETURN of Deaths in Hospital.

Names.	Age.	Disease.	When Admitted.	Died.	Country.	No. of Days in Hospital.
Smith, David	23	Hæmoptysis	March 311908	June 14,'08	Canada	75
Hogan, Frank	27	Suicide, hanging		July 17	Sweden	
Anderson, I. E	53	Marasmus	July 30	Aug. 26	Canada	27
Barry, Jennie	40	Carcinoma	Dec. 3, 1907	Nov. 16	Ireland	349
Hickey, John	42	Chorea	Oct. 11, 1904	Dec. 6	Canada	4 yrs., 56 days
Walsh, John	40	Cuihosis, liver	Dec. 28, 1907	Mar. 3, '09	Ireland	430

ANNUAL RETURN of Criminal Insane Convicts in the Insane Ward from 1st April, 1908, to 31st March, 1909.

Distribution.	Male.	Female.	Total.
Remained under treatment on March 31st, 1908	27		27
Since admitted—			
Kingston Penitentiary	21		21
St. Vincent de Paul Penitentiary	5		5
Manitoba Penitentiary	4		4
Total number under treatment during the above period	57		57
Discharged—			
Cured	11		11
Improved sufficiently to resume work	6		6
Transferred to Provincial Asylum on expiration of sentence	1		1
Deported	1		1
Died	2		2
Remaining under treatment on March 31, 1909	36		36

OBITUARY.

Age.	Date of Death.	Duration of Insanity.	Proximate Cause of Death.
35	December 4, 1908	161 days	Paralysis.
50	January 12, 1909	263 days	Paresis.

INSANE WARD.

	NAMES	Date of Admission.	From Whence Received.			How Disposed of			Remaining under treatment 31 March, 1909.	Remarks.
			Kingston Penitentiary.	St. Vincent de Paul.	Manitoba.	Discharged Cured.	Improved to resume work.	Died.		
1	Reid, Thomas	April 21, 1908	1				1			
	"	June 24	1			1				
2	Phillips, Henry	April 23	1				1			
	"	Feb. 11, 1909	1						1	Improved.
3	McLeod, James	April 24, 1908	1				1			
	"	September 19	1					1		
4	Hogan, Frank	May 2	1				1			
5	Roselle, Thomas	" 6	1			1				
6	Pelletier, Joseph	June 11		1			1			
	"	July 19	1						1	Improved.
7	McGillivray, Angus	June 11		1					1	Incurable.
8	Lemonte, Walter	" 11		1		1				
9	St. Germain, Joseph	" 11		1		1				
10	Angers, Jos. B.	" 11		1					1	Improved.
11	Bulwar	" 26			1			1		
12	Shufelt, Edward	" 26			1				1	Improved.
13	Higgins, Alex. C	" 26			1	1				
14	Sandycock, John	" 26			1		1			
	"	November 11	1				1			
	"	December 26	1						1	Improved.
15	Trembley, Louis	July 4	1			1				
16	Tatevo, Giovanni	" 8	1				1			
	"	August 4	1						1	Improved.
17	Powell, Thomas	July 31	1			1				
18	Sharpe, Daniel	August 3	1						1	Improved.
19	Benda, Herman	" 4	1						1	Incurable.
20	Carey, George	" 5	1						1	Improved.
21	Murphy, Joseph	" 21	1						1	Improved.
22	Tearce, John D	September 4	1						1	Improved
23	McIntosh, Raymond	November 10	1						1	Improved.
24	Deschene, Joseph	" 21	1				1			
25	Slaughter, James	" 27	1						1	Improved.
26	Burns, Edward	" 28	1			1				
27	Lumley, Stephen	February 6	1						1	Incurable.
28	Murray, Thomas	March 6	1						1	Improved.
			26	5	4	8	9	2	16	

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KINGSTON.

	Name.	Date of Admission.	Discharged; cured.	Improved to resume work.	Died.	Remaining under treatment, March 31, 1909.	Remarks.
1	Reid, Thomas	April 21 '08		1			
	"	June 24	1				
2	Phillips, Henry	April 23		1			
	"	Feb. 11, '09				1	Improved.
3	McLeod, James	April 24 '08		1			
	"	Sept. 19			1		
4	Hogan, Frank	May 2		1			
5	Roselle, Thomas	" 6	1				
6	Pelletier, Joseph	July 19				1	Improved.
7	Sandycock, John	Nov. 11		1			
	"	Dec. 26				1	Improved.
8	Trembley, Louis	July 4	1				
9	Tativo, Giovanni	" 8		1			
	"	Aug. 4				1	Improved.
10	Powell, Thomas	July 31	1				
11	Sharpe, David	Aug. 3				1	Improved.
12	Benda, Herman	" 4				1	Incurable.
13	Carey, George	" 5				1	Improved.
14	Murphy, Joseph	" 21				1	Improved.
15	Tearce, John D	Sept. 4				1	Improved.
16	McIntosh, Raymond	Nov. 10				1	Improved.
17	Deschene, Joseph	" 21		1			
18	Slaughter, James	" 27				1	Improved.
19	Burns, Edward	" 28	1				
20	Lumley, Stephen	Feb. 6, '09				1	Incurable.
21	Murray, Thomas	March 6				1	Improved.
			5	7	1	13	

ST. VINCENT DE PAUL.

ST. VINCENT DE PAUL, 1st April, 1909.

Oscar Beauchamp, Esq.,

Warden.

Sir;—I have the honour to submit my annual report of the fiscal year 1908-1909.

Nothing worthy to be mentioned occurred during the year in the medical department, except the increasing number of patients treated in the hospital.

For the last months we had to bear a very serious inconvenience for the patients, the hospital having been transformed as a dormitory for convicts.

The patients are in immediate contact with others, and we cannot keep them in a complete quietness and rest, there being so much noise at different hours of the day.

On account of that, overcrowding, the ventilation is far from being what it ought to be.

More cases of deaths have occurred during the year. I must remark that many convicts when sentenced and taken here, are in a very poor condition. They are mere wrecks, on account of alcoholism, specific diseases and many other causes.

These convicts when affected with a serious disease can hardly pull through. We had during the year a few cases of typhoid fever, only one died, they were immediateiy isolated.

As you can see by the total number of consultations given to convicts outside the hospital, it is widely increasing.

We had also a large number of patients in the hospital, 78 altogether, we never had so many.

Diseases.	No.	Diseases.	No.
Amydalitis	2	Heart disease	6
Adenite	2	Lumbago	1
Abscess	6	Neurasthenia	2
Bruised foot	1	Pneumonia	1
Blows (contusion)	8	Periostite	1
Carbuncle	2	Varicasis	1
Compression of the brain	1	Pleurisy	1
Cholera	5	Rhumatism	3
Conjonctivite	1	Rupture	1
Diarrhœa	4	Skin disease	1
Depression	5	Syphilis	1
Debility	1	Tumor, operated	1
Earache	1	Tuberculosis	1
Erisypelatis	1	Tuberculosis of bowels	1
Enterites	7	Typhoid	1
Gastritis	1	Tabes dorsalis	1
Gastro enterite	3	Ulcers in the mouth	1
Infection of bowels	1	Wound on the neck	1

DEATHS.

Ashton, Arthur, tuberculosis of the bowels.
Miron, Adelard, pleuresy.
Gagné, Philias, heart disease.
Giaccono, Antonio, ataxia.
Lavoie, John, heart disease.
Greenhill, George, A., typhoid fever.
Flynn, John, pneumonia.

AD. ALLAIRE, M. D.,

Surgeon.

HOSPITAL OVERSEER'S REPORT.

Drugs on hand March 31st, 1908	$ 192.97	
Drugs purchased during the year 1908-1909	415.57	
		$ 608.54
Drugs sold to officers during the year	$ 40.15	
Drugs issued to convicts during the year	361.64	
		$ 401.79
Drugs on hand March 31st, 1909		$ 206.75
Cost per caput		79

D. O'SHEA,

Hospital Overseer.

DORCHESTER.

DORCHESTER, April 1st, 1909.

To the Warden:

I have the honor to submit my annual report for the year ended March 31st, 1909.

During the past year there was one death among the convicts and none among the officers.

The health of the officers has been very satisfactory. Among the convicts the most prevalent diseases were of the pulmonary and urinary organs, and of rheumatism, their health, in general has been fair.

We have now in the institution two insane convicts whom I hope, will soon be transferred to an asylum, as we have no accommodation for such cases.

The usual statements are appended.

E. T. GAUDET,
Surgeon.

CASES TREATED AT THE DISPENSARY.

Diseases.	Remained.	Admitted.	Discharged.	Remaining.
Abscess		10	10	
Acidity		57	53	4
Asthma		4	4	
Boils		25	25	
Bronchitis		7	7	
Burns		16	16	
Cardialgia		18	18	
Catarrh nasal		47	37	10
Cephalagia		62	62	
Chills		15	15	
Colds		82	82	
Colic		32	32	
Contusions		40	40	
Costiveness		92	92	
Coughs		118	118	
Cutaneous eruptions		17	17	
Debility	1	13	9	5
Diarrhœa		85	85	
Dysentery		13	13	
Dyspepsia		8	8	
Gonorrhœa	2	8	6	4
Heart disease		5	5	
Hernia		3	3	
Hæmorrhoids		22	22	
Incontinence		15	15	
Indigestion		56	56	
Influenza		37	37	
Insanity		2		2
Insomnia		18	18	
Lumbago		35	35	
Enlarged glands	1		1	
Neuralgia		74	74	
Ophthalmia		27	27	
Otitis	1	9	10	
Pyrosis		1	1	
Retention		10	10	
Rheumatism	3	47	45	5
Scrofula		2	2	
Sore throat		76	76	
Sprains		18	18	
Stomatitis		41	41	
Stricture		7	7	
Syphilis		6	3	3
Teeth extracted		145	145	
Tonsilitis		47	45	2
Tuberculosis	1	3	4	
Varicocele	3		3	
Jaundice		3	2	1
Wounds	1	43	44	

CASES TREATED IN THE HOSPITAL.

Diseases.	Remained.	Admitted.	Total.	Discharged.	Remarks.
Debility		1	1	1	
Dropsy		1	1	1	Ticket of leave.
Erysipelas		1	1	1	
Fracture of ulna		1	1	1	
Heart disease (valvular)	1		1	1	Ticket of leave.
Piles (operation)		1	1	1	
Punctured wound		1	1	1	
Rheumatism	1	2	3	3	
Syphilis		1	1	1	
Tuberculosis		1	1	1	Deported.
Wounds	1		1	1	
	3	10	13	13	

EXPENDITURE FOR DRUGS AND MEDECINES.

Stock on hand March 31st., 1908	$ 226.52	
Drugs and sundries purchased	575.99	
		$ 802.51
Less		
Drugs on hand March 31st., 1909	$ 396.42	
Received for medicines supplied officers	52.84	
Drugs to farm	30	
		$ 449.56
Net expenditure for drugs	$ 352.95	
Per capita cost	1.48	

E. T. GAUDET,

Surgeon.

MANITOBA.

STONY MOUNTAIN, May 3, 1909.

To the Warden:—

SIR:—I have the honor to submit my annual report for the year ended March 31st, 1909.

The health of the convicts has been fairly good during the past year. There were no deaths. Five convicts were reported insane: Four of these were sent to Kingston Penitentiary and one to Selkirk Asylum.

There was one accident: a convict was struck with a stone from a blast while at work on the "new road", causing a compound fracture of left arm. He made a good recovery.

The health of the officers has been very satisfactory, only 131½ days being lost during the year on account of illness.

The usual statements are appended,

I have the honor to be,
Sir,
Your obedient servant,
R. W. NEILL, M. D.,
Surgeon.

CASES TREATED IN THE HOSPITAL.

Diseases.	Remained.	Admitted.	Discharged.	Died.	Remained.
Adenitis		1	1		
Anæmia	2	1	2		1
Bruise		5	4		1
Billiousness		3	3		
Boils		5	5		
Cold	5	32	36		1
Constipation		6	6		
Corns		1	1		
Cramps		1	1		
Compound fracture of humerus		1	1		
Chafed ankles		1	1		
Diarrhœa		39	39		
Eczema		1	1		
Epilepsy		3	1		2
Foreign body in eye		2	2		
Frost bite		1	1		
Gravel		1	1		
Headache		5	5		
Heat prostration		1	1		
Hypochondria		2	2		
Indigestion	1	11	11		1
Influenza		11	11		
Insanity		5	5		
Inflammation of knee joint		1	1		
Insomnia		2	2		
Jaundice		1	1		
Lumbago		9	9		
Lead poisoning		1	1		
Malaria		1	1		
Neuralgia		6	6		
Ophthalmia		3	2		1
Palpitation		2	2		
Pain in side		1	1		
Rheumatism		6	6		
Shingles		1	1		
Stricture		1	1		
Syphilis		2	2		
Sprain		7	7		
Strain		4	4		
Tonsilitis		6	6		
Toothache		3	3		
Tuberculosis	1	3	3		1
Ulcer		2	2		
Ulcer of mouth		1	1		
Wound		4	4		
Varicose veins	2		2		

CASES TREATED AT THE DISPENSARY.

Diseases.	No.	Diseases.	No.
Acnæ	12	Ingrowing toe nails	5
Adenitis	1	Insomnia	6
Anæmia	19	Jaundice	4
Acidity of urine	1	Lumbago	31
Bright's disease	3	Lead poisoning	2
Bruise	5	Malaria	2
Biliousness	8	Mosquito bite	1
Blister	2	Neuralgia	10
Boils	4	Night sweats	1
Constipation	149	Opthalmia	2
Cold	213	Piles	15
Chafed feet	1	Pain in side	8
Corns	25	Palpitation of heart	10
Chafed lips	4	Pharangitis	6
Cystitis	5	Psoriasis	6
Chafed hands	3	Prairie itch	4
Nasal catarrh	6	Pin worms	2
Catarrh of ears	7	Rheumatism, muscular	24
Cramps	1	Rupture	3
Consumption	1	Syphilis	31
Diarrhœa	63	Sunburn	1
Earache	5	Sciatica	4
Eczema	30	Sprain	7
Endocarditis	1	Sty	1
Epilepsy	4	Sore feet	4
Foreign body in eye	5	Strain	9
Falling hair	1	Seminal emissions	2
Frostbite	1	Toothache	19
Gonorrhœa	4	Tonsolitis	12
Gravel	6	Torticollis	1
Gallstone	1	Ulcer of mouth	12
Headache	23	Ulcer of tongue	1
Heartburn	7	Ulcer of leg	2
Hives	1	Warts	2
Hypochondria	1	Weak eyes	7
Hemorrhage of lungs	1	Wax in ears	10
Indigestion	70	Wound	10
Influenza	10	Tuberculosis	2

EXPENDITURE FOR DRUGS AND MEDECINES

Stock on hand, March 31., 1908	$ 185.82	
Drugs and sundries purchased	160.26	
		$ 346.08
Drugs on hand, March 31, 1909		202.13
		$ 143.95
Drugs sold to officers,	$ 38.92	
Drugs sold to stables	.12	39.04
Net expenditure for year		$ 104.91
Cost per caput		.81

BRITISH COLUMBIA.

NEW WESTMINSTER, 30th, April 1909.

SIR;—I have the honour to submit my annual report for the year ended 31st, of March, 1909.

Owing, doubtless, to the large increase in our prison population, the number of cases treated during the year is much larger than in former years. For the most part these have not been serious, but there was one case of appendicitis (released on ticket of leave); one of heart failure and one of congestion of the lungs—the last two terminating fatally. One convict became mentally unsound about the beginning of the year, but his derangement being of a harmless nature he has not been transferred to the asylum for the insane, but is being treated in the prison hospital.

Two deaths by suicide occurred during the year.

Towards the end of the year la grippe, which has been prevalent in the neighbourhood, made its appearance in the prison mostly in a mild form, accounting for the large number of colds and sore throats mentioned in the tables.

The usual tables are appended showing the work done during the year in this department, and I have the honour to be,

Sir,

Your obedient servant,

W. A. DE WOLF SMITH,

To the Warden. *Surgeon.*

CASES TREATED IN HOSPITAL.

Diseases.	Remaining.	Admitted.	Total.	Discharged.	Died.	Remaining.
Abdominal tumour		1	1	1		
Abscess		1	1			1
Appendicitis		1	1	1		
Bronchitis		1	1			1
Colds		2	2	2		
Congestion of lungs		1	1		1	1
Cut hand		1	1	1		
" lip		1	1	1		
Diarrhœa		2	2	2		
Dislocation of elbow		1	1	1		
Epilepsy		1	1	1		
Hernia		1	1	1		
Indigestion	1	4	5	5		
Injury to foot		1	1	1		
Insane		1	1			1
La grippe		1	1			1
Lumbago		1	1	1		
Pharyngitis		5	5	4		1
Phthisis		1	1	1		
Scald of foot		1	1	1		
Sore finger		1	1	1		
" hand		1	1	1		
Sprained foot		1	1	1		
Wound of tongue		1	1		1	
Total	1	34	35	28	2	5

Number of days spent in hospital, 918.

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DISPENSARY CASES.

Diseases.	No.	Diseases.	No.
Abscess	5	Impetigo	1
Acne	6	Indigestion	39
Adenitis	6	Injury to hand	1
Ague	1	" knee	1
Anorexia	7	" nose	1
Asthma	5	Insomnia	19
Biliousness	5	Intermittent heart	1
Bronchitis	1	Itch	1
Bruise of arm	3	La grippe	6
" ankle	1	Lumbago	12
" back	3	Melæna	1
" chest	1	Neuralgia	18
" finger	1	Onychia	1
" foot	7	Ophthalmia	3
" hand	2	Otitis	1
" leg	1	Otorrhoea	2
" shoulder	1	Pain in back	28
Burn of arm	3	" chest	16
Catarrh	2	Pediculi	4
Chapped hands	2	Pharyngitis	58
Colds	86	Phthisis	1
Conjunctivitis	1	Pleurodynia	23
Constipation	761	Rheumatism	36
Coryza	26	Scrofula	2
Cough	83	Sore back	4
Cramps	15	" hand	3
Cut hand	6	" lips	3
" finger	9	" toe	1
" foot	1	Spermatorrhoea	1
" lip	3	Sprain of foot	2
" wrist	1	" wrist	2
Cystitis	3	Strain back	4
Dandruff	2	Stricture	4
Diarrhoea	11	Sty	1
Dizziness	2	Swelled testicle	52
Earache	1	Teeth extracted	54
Eczema	16	Tootache	11
Elongated uvula	1	Tonsillitis	3
Epididymitis	2	Torticollis	1
Epilepsy	1	Tuberculosis	1
Epistaxis	1	Ulcerated gums	4
Foreign body in eye	2	Ulcers	4
Furuncle	7	Urticaria	3
Ganglion	1	Vaccination	7
Gleet	6	Varicocele	1
Gonorrhoea	5	Vaircose veins	2
Gumboil	11	Warts	1
Headache	38	Wax in ears	2
Hæmorrhoids	14	Weak back	2
Hernia	3	" eyes	9
Herpes	2	Wound on occiput	2
Herpes zoster	1		

DEATHS DURING THE YEAR.

Name.	Age.	Cause of Death.	Date of Admission.	Date of Death.	Nativity.	Days in Hospital.
Newman, Paul	49	Heart failure	1908. Sept. 28	1908. Sept. 29	Canadian	1
Carlson, Frank	50	Congestion of lungs	1909. January 12	1909. January 28	Swede.	17
Weston, John B	29	Suicide (cut throat)	1905. Dec. 14	1909. Jan. 25	American	
Benedetti, Robert	36	" (hanging)	1908. April 7	1909. Feb. 2	Italian	

DRUGS AND MEDECINES.

Drugs on hand April 1, 1908	$ 243.07	
Drugs purchased 1908-09	316.13	
		$ 559.20
Medicines supplied officers	21.39	
Drugs on hand March 31, 1909	247.20	
		$ 268.59
Net cost of drugs		$ 290.61
Cost per caput		1.63

ALBERTA.

EDMONTON, April 1st,. 1909

To the Warden:

I have the honour to submit my annual report for the year ending March 31st., 1909.

The health of the prisoners has been good no serious illness with the exception of two tuberculous patients and one of cancer of the intestines, for which an operation had been performed before he was sentenced to the penitentiary—his was the only death we have to record during the year. The health of the officers was good.

The sanitary condition of the institution is good notwithstanding the use of the temporary cell block which has not the up-to-date plumbing in the cells.

We had no accidents during the year.

ALEX. FORIN, M. D.,

Surgeon.

CASES TREATED

Diseases.	No.	Diseases.	No.
Asthma	2	Inflamatory rheumatism	7
Abscess	2	Lead poisoning	1
Anæmia	2	Lancing tubercolous abscess	1
Abdominal hernia	1	Lumbago	27
Abdominal operations for cancer of intestines	2	Neuralgia	15
Bronchitis	27	Nephritis	5
Bright's disease	1	Neurasthenia	1
Burn	1	Otistis	2
Constipation	38	Orchitis	2
Corns	4	Operation for removal of wen	1
Cystitis	4	Operation for necrosis	1
Conjunctivitis	17	Pharyngitis	7
Colic	9	Pleuradynia	1
Convulsions	1	Pediculosis corporis	5
Cancer of bowels	1	Rheumatism muscular	30
Diarrhea	43	Rupture	1
Dressing vaccine ulcer	14	Removing foreign body from eye	1
Dysentery	2	Sprain	14
Eczema	8	Stomatitis	1
Erisypelas	1	Tonsillitis	14
Enlarged glands	1	Tuberculosis general	1
Fish bone in finger	1	Tuberculosis pulmonary	3
Felon	1	Teeth extracted	47
Hæmmorhoids	7	Torpid liver	22
Indigestion	30	Vaccination	12
Indisposition	19	Vaccine ulcer	2
Influenza	8		
Insomnia	3	Total	475
Injury to finger	1		

Drugs, instruments etc., on hand March 31st., 1908	$ 263.70	
Drugs, instruments, etc. purchased	232.18	
		$ 495.88
Drugs used by convicts during the year	88.96	
Drugs sold to officers during the year	9.80	
		98.76
Drugs, instruments etc., on hand March 31st., 1909		$ 397.12
Average cost per capita		1.03

APPENDIX D.

CHAPLAIN'S REPORT

KINGSTON.

PORTSMOUTH, ONT., April 22, 1909.

To the Warden:

I hereby submit to you my sixth report as protestant chaplain of Kingston penitentiary for the fiscal year ended March 31st, 1909.

I find that on that date the chapel register shews that there were under my care 387 prisoners (383 men and 4 women), whose religious connections are as follows:—

Church of England	145
Methodists	107
Presbyterians	70
Baptists	32
Lutherans	16
Jews	5
Greek Catholics	2
Salvation Army	1
Adventist	1
Free Thinker	1
Quaker	1
Congregationalist	1
Christian Worker	1
Not known	4
Total	387

I cannot abstain from saying how depressed one often is at finding in so many of the prisoners so great insensibility to the claims of common morality, and at their appalling ignorance of even the simplest historic facts of the christian religion. This shews the need there is of instruction in those saving truths of christianity which are generally received, and in the unchangeable moral Laws of God. For these tell their own story.

Without doubt the lack of home teaching is in a great degree answerable for this state of ignorance.

The more I come in touch with fallen men, the more I see the need, the importance, of maintaining discipline with sympathy and kindness, and of uniting gentleness of manner with firmness of mind. Such treatment appeals to the better part of man's nature, and exerts a far-reaching influence for good. And it should be an unbroken rule.

It gives me much pleasure to say that our services are as hearty and interesting as ever, and our endeavor is to have as great a variety as it is consistent with reverence and devotion.

We have been assisted, as in other years, at several of our song services, by gentlemen from outside, and also by officials of the prison. We were favoured by a visit from Professor John Watson, of Queen's College, who gave a very instructive and profitable address. Also the Rev. I. Craig, of Kingston, with a quartette of youths, took part in one of our services, the former delivering a short address, the latter giving us some sweet selections of music, and joining also with the choir in the regular service.

I desire once more to thank the officials and the officers for their kindness and courtesy.

Respectfully submitted,

A. W. COOKE,

Protestant Chaplain.

KINGSTON, March 31st., 1909.

To the Warden:

I beg to submit my annual report for the year ending this 31st., of March 1909.

The number of convicts found recorded on our chapel register at this date is 174 males and 4 females total 183—the largest in my experience as chaplain of the Kingston penitentiary during the past ten years. Upon examination of our records for the previous decade, I notice that the old congregation has entirely disappeared, and at this date we have not one man or woman in the chapel who was here ten years ago. It might be also interesting for you to hear that 457 males and 33 females were received as against 363 of the former and 29 of the latter discharged during the same period.

It is more than gratifying for me to say that the chapel discipline is perfect and the conduct of the men so decorous that it will compare most favorably with that of any congregation in the country. They give the greatest attention to the instructions imparted to them and show a lively interest in any thing that is done to advance their spiritual welfare.

With heartfelt thanks to the staff in general for their ready co-operation and good-will on all occasions.

I remain,

Yours respectfully,

M. McDONALD,

Roman Catholic Chaplain.

ST. VINCENT DE PAUL.

ST. VINCENT DE PAUL, 1st. April, 1909.

To the Warden:

Allow me to forward the annual report of the Roman Catholic chapel and its ecclesiastical concerns for the year 1908-1909.

321 convicts attended it on the 1st April 1908, 236 have since reached it from the courts of justice and 2 from the protestant chapel. 137 have left it, viz; 88 released; 37 licensed, 2 pardoned; 5 through death; 5 transferred to Kingston.

422 are its actual inmates. Let me now repeat my former statements. The men appreciate their chapel, do, in a notable majority, comply with their religious duties and zealously partake in the singing and ceremonies. Owing mostly to our organist, however so little paid for it, music is highly contributing to the success of divine worship and the pomp of its solemnities.

This is for me the natural occasion of offering my gratitude to all the officials of the penitentiary and the department in Ottawa for their kind feelings and help in the good result of my task.

Your respectful servant.

L. O. HAREL, Priest.

Roman Catholic Chaplain.

ST. VINCENT DE PAUL, 1st, April, 1909.

To the Warden:

SIR:—I beg herewith to submit my fourteenth annual report as protestant chaplain of this penitentiary.

Movement of convicts during the year:—

Remaining 31st., March 1908	78	
Since received	35	
		113
Discharged by expiry of sentence	16	
Licensed	8	
Transferred	4	
Died	2	
Deported	1	
		31
Remaining the 31st, March 1909		82
		113

Creeds:—

Church of England, 62; Presbyterian, 30; Methodist, 7; Lutherans 4; Baptist, 3; Universalist, 1; Mormon, 1; Congregationalist 1; Protestants, unclassed, 4 113

Land of birth:—

Canada, 59; England, 22; U.S.A., 13; Scotland, 5;, Germany, 4; Ireland, 2; France, Finland, Wales, Bavaria, Sweden, S. Africa, Jamaica, New-Zealand, one each..... 113

Two convicts were baptized, 8 confirmed, and 25 were admitted to the holy communion of which there were 6 celebrations during the year. Two died in the prison, and were buried in the new cemetery on the prison property; while one, released in order to receive surgical treatment, died shorty afterwards. I ministered to him in one of the city hospitals till his death and also buried him.

I would mention that the new burial-plot, or cemetery, has been inclosed with a neat and strong wire fence, and that several slight additions have been made to the chapel furniture. The conduct of the men has been exemplary while in chapel, and I have had much to encourage me in my work, and to cause me to hope that it "has not been in vain in the Lord."

Before closing this report, I would desire to offer to the warden, deputy warden, and officers generally, my sincere thanks for the assistance and support they have given me in the discharge of my duties.

JOHN ROLLIT,

Protestant Chaplain.

DORCHESTER.

DORCHESTER, N. B., March 31st, 09.

To the Warden:

SIR:—I have the honor of presenting my third report as the protestant chaplain of the Dorchester penitentiary.

It is difficult to trace and measure the growth and expansion of any spiritual work, by resorting to the formation of columns of figures, and the compilation of facts.

Eternity alone, will reveal the measure of faithfulness put into the religious activities of the prison year included in this report.

Making a careful review of the register, and the supplementary jottings, we discover that we have much to be sincerely thankful for; and we would certainly be something more than human, if in the history of the past year, there were not some things to be regretted.

We obtain the following statistics from the register which has been kept with a view to absolute accuracy:—

In custody, March 31st, 1908	141
In custody, March 31st, 1909	133
Of this number, twelve are females	12
Total admitted during year	55
Discharged by time expiration	29
Liberated on parole	28
Discharged by pardon	1
Deported	2

The following list gives the classification by creeds:—

Church of England	53
Baptist	32
Methodist	26
Presbyterian	21
Lutheran	1
Total	133

It will be noted that death has not entered the ranks of the men under my care during the year, for this we thank God.

It is a pleasure to speak in highest terms of the high standard of discipline maintained, this fact is very much in evidence especially during the chapel service.

The regular services have been maintained throughout the year without a single break, including very helpful services on Thanksgiving Day, on Christmas Day, and on Good Friday, in these services the chaplain was assisted by request by neighboring pastors.

We had as one of the distinguished preachers in the prison during the year Rev. Elias W. Gardner, of Battle Harbor, Labrador. His sermons were of a high order, and were intensely missionary in character.

We are still receiving every courtesy, from the officers in charge, and notably from the matrons, the deputy warden, the chief keeper, and yourself.

We cannot refrain from speaking of the exceedingly helpful Bible class held for the benefit of the female prisoners, each Wednesday in the parlour of the matrons.

The ordinance of baptism has been administered twice during the year, once by the chaplain, and once by the resident Methodist clergyman. The convict choir is doing efficient work, under the skilled training of our organist.

BYRON H. THOMAS,

Protestant chaplain.

DORCHESTER, N.B., March 31st, 1909.

To the Warden:

I have the pleasure to submit my annual report for the fiscal year ending March 31st., 1909, on which date I had 107 males, 6 females convicts a grand total of 113.

I reiterate my sense of gratification to continue to witness the commendable behaviour of the convicts in the chapel at catechism classes, and in whatever place or occasion I have to meet them. Their attention and general good demeanour during mass and public instructions is praiseworthy. During my twenty-one years of ministration amongst them, never once had I a reason to report a man. This to a vast extent rebounds to the credit of the discipline of the prison.

Last August we had the honour to receive in our prison chapel His Lordship Bishop Casey, of St. John, who kindly consented to hold confirmation service. Sixteen convicts prepared themselves earnestly to the reception of that Great Sacrament. His Lordship gratified the men under my spiritual charge, to a very interesting address. He was listened to with spell-bound attention.

The good results of such a visit were of a strong and lasting nature. I had the consolation, more than once, to confront the salutary effects thereof.

It was my sad duty during the course of this fiscal year to note the death of a female convict.

In conclusion, I must again give vent to my feelings of gratitude towards the entire staff for their civility and gentlemanly deportment in my dealings with them.

I am sir,

Your humble servant,

A. D. CORMIER, Priest.

Roman Catholic Chaplain.

MANITOBA.

STONY MOUNTAIN, April 6th, 1909.

To the Warden:

I herewith submit my second annual report as protestant chaplain of this institution.

While there have been many discouragements during the year, yet I believe some good has been accomplished. The men have been very attentive in all our services, and have shown appreciation of efforts made for their spiritual good.

I find that in the effort to establish better and higher ideals of life that we have often to labor patiently to overcome wrong and low ideals. I find the younger element of our population much more susceptible and responsive to these teachings than the older ones.

I desire to express my gratitude to other pastors, and also the Salvation Army, for their interest and help in this work. The marked appreciation of the men for these services is to us a hopeful sign.

The movement of the convicts has been as follows:—

Convicts on register, March 31, 1908	83	
Received during the year	52	
		135
Discharged:—		
By expiration of sentence	13	
parole	17	
transfer to Kingston Penitentiary	4	
deportation	2	
		36
Number remaining on register April 1, 1909		99

Creeds, as given by themselves on entering:—

Church of England	46	
Presbyterian	22	
Methodist	11	
Lutheran	9	
Baptist	6	
Jewish	2	
Unitarian	1	
Congregational	1	
No creed	1	
		99

S. W. L. STEWART,
Protestant Chaplain.

STONY MOUNTAIN, March 29th, 1909

To the Warden:

I have the honour to submit my report for 1908-09. I have nothing particular to state.

I am, Sir,
Your humble servant,
ARTHUR BELIVEAU, Priest,
Roman Catholic Chaplain.

BRITISH COLUMBIA.

SAPPERTON, 23rd. April, 1909.

To the Warden:

I have the honour to present my report as protestant chaplain of this penitentiary for the year ending March 31st, 1909.

Convicts remaining March 31st, 1908	98	
Convicts received during fiscal year	75	
Total ministered to during the year		173
Discharged by expiry of sentence	15	
Paroled	18	
Pardoned	3	
Removed by order of court	2	
By death	3	
Escaped	1	
		90
Total under my charge 31st. March 1909		131
Creeds:—		
Church of England	39	
Methodist	25	
Buddhist	17	
Presbyterian	31	
Lutheran	4	
Baptist	5	
Jewish	2	
No creed	8	
Total		131

Referring to men received since my last report, twenty-seven are total abstainers; thirty-one are temperate; and seventeen are intemperate. If these figures mean anything at all they might indicate an advance in temperance sentiment. Strange however that of the thirty-one noted as temperate, at least twenty per cent. attribute the cause of their fall to drink. I regret to have once again to call attention to the high percentage of convicts under twenty-one years of age. Out of seventy-five men received there are sixteen lads under the age of twenty-one years, and two of these are mere children, aged sixteen. The fact that the penitentiary inspectors men of large knowledge in such matters, realize the unsuitability of penitentiary environments for juvenile offenders fosters the hope that something may speedily be done towards the solution of this difficult problem.

As to home influence, I find that in one case the influence has been of the best; in sixteen cases, good; in twenty cases, fair; in seventeen cases, poor; in seventeen cases, so far as I can judge, no effort at all has been made to influence the development of life along right lines; whereas in two cases whatever of influence there has been, has been of a decidedly bad character. The increase in population is apparent, and although it must ever be a matter of regret, it must be looked for in a growing province.

I would respectfully call attention to the fact that the chapel is uncomfortably crowded, and express the hope that some steps will be taken to rectify this.

I have been called upon to officiate at three funerals, and in the performance of these sad rites the condition of the burying ground has been forcibly called to my attention. I feel sure that this is a matter which only requires mentioning to be attended to.

The services have been held regularly, and the behaviour of the men in chapel has been all that could be desired. The sick have been constantly visited. The sacrament of the Lords Supper was dispensed once during the year.

Letters received from those discharged form the bright spots in a work which has many discouragements.

I have to thank the deputy warden and all officers for courtesy and kindness extended to me in the discharge of my duties.

Yours respectfully,

ALBERT EDWARD VERT,

Protestant Chaplain.

To the Warden:

SIR:—I have the honour to submit to you the report of the Roman Catholic chaplain for the year ending March 31, 1909, as I have performed the duties of such during the year.

The number of convicts entered on the catholic chaplain's register on March the 31st., was 73 against 53 of last year; 36 were received during the year, 15 were released, and 1 died.

The register gives some interesting facts about the spiritual state of the convicts. According to their own statement when inscribed, it appears that, out of the 89 men who were under the charge of the chaplain at some time during the year, only 12 had received communion during the year preceding their incarceration, 4 were doubtful, (and out of these 16, 8 are Indians, leaving only 8 white men practical catholics); 24 had ceased going to church some 2 to 10 years before their incarceration; 23 had left it more than 10 years before; and 26 had either never received the sacraments or were not even baptized.

During the year, 52 convicts received holy communion, many, several times; 2 were baptized, 8 are studying and preparing themselves; leaving still 27 who did not show a sincere and serious desire to become really good christians.

The convicts always welcome the visit of the chaplain, and all without exception seem to derive real benefit from these visits.

I take this opportunity to thank you and all the officers for their kindness and courtesy.

E. LAMBOT, O.M.I.

Roman Catholic Chaplain.

New Westminster,

April 1st., 1909.

ALBERTA.

EDMONTON, 7th April, 1909.

To the Warden:

I have the honour to present my annual report for the year ending 31st March, 1909.

At the close of the last fiscal year there were forty-seven protestant prisoners—forty-four males and three females, under my care.

During the year there were admitted thirty-eight prisoners—thirty-seven males and one female.

Twenty-eight prisoners—twenty-seven males and one female—received their discharge, and one male prisoner died.

This leaves a total of fifty-six protestant prisoners—fifty-three males and three females—at the end of the year.

In addition to the regular services a special service is held for the female prisoners by the ladies of the W.C.T.U. under the direction of the chaplain, and it has been very much appreciated and has resulted in good for those concerned.

An organ has been provided by the authorities and choir practice is usually held on Saturday afternoon. As a result the whole service has been brightened and improved.

On three occasions special services were held on the Sunday at the usual hour and these were evidently appreciated by the prisoners.

The men are well provided with good reading matter in a carefully selected library of over eight hundred volumes and eight monthly magazines. The due appreciation of this provision is seen in the use made of the books and magazines.

In conclusion, I must thank all the officials of the institution for their uniform kindness and courteous consideration of the chaplain in the discharge of his duty.

D. G. McQUEEN,
Protestant Chaplain.

EDMONTON, ALTA., 26th., April, 1909.

To the Warden:

I have the honour of presenting the annual report as acting Roman Catholic chaplain of the Alberta penitentiary for the year ending March 31st., 1909.

At the close of the past fiscal year, there were thirty Roman Catholic prisoners in confinement. There are now thirty-three males and one female; in all thirty-four on the catholic register. These are of seventeen nationalities. Divine service has been held twice on Sundays and holidays. Many private visits were paid to the Roman Catholic convicts by priests coming from different parts of the province of Alberta. These visits were appreciated by the convicts. His Lordship, Right Reverend, Bishop Legal, of St. Albert, administered the sacrament of confirmation on the 31st of May last, to eight of the convicts. It was a great honor to them to to see the Right Reverend Bishop Legal in their hall, administering the sacrament to eight of them. Most of the convicts go to the sacraments several times during the year. We cannot wish for more, if we consider that quite a number of them had but the name of a Roman Catholic and knew nothing about the teachings of their church. So far, I am satisfied with their attention during the service. In conclusion I must say that the most of the convicts if not all, will derive a real benefit from the attendance to the religious service and will try to better themselves.

I must also thank the officers for their kindness and the courtesy they have always shown me.

ALPH. DESMARAIS, PRIEST. O.M.I.
For the Roman Catholic Chaplain.

APPENDIX E.

SCHOOL INSTRUCTORS' REPORTS

KINGSTON.

KINGSTON, April 1st, 1909.

To the Warden:

I have the honour to submit my fourteenth annual report of the school in this penitentiary for the year ended March 31st, 1909.

The total number enrolled during the year was seventy-four. Of this number thirty-one passed out, capable of reading and writing and with a fair knowledge of the elementary rules of arithmetic; five retired owing to expiration of sentences. The present attendance is thirty-eight.

The studies of these are divided as follows:—

Reading in Part I..... 9
Reading in Part II.....13
Reading in second book and writing.....10
Reading in third book, writing and arithmetic..... 6

Mr. Begg has conducted the school in a very satisfactory manner. The conduct and application of the pupils have been excellent.

W. A. GUNN,
School Instructor.

LIBRARY RETURNS.

	Total Number of Volumes in Library.	Number added during Year.	Average Number of Convicts who used Works.	Total Number of Issues during the Year.
General library	4,263	313	550	37,950
Protestant library	350	.....	200	9,200
Roman Catholic library	355	.....	150	6,900
Total	4,968	313	900	54,050

151 volumes of magazines bound in the prison are included in 313 added during the year.

ST. VINCENT DE PAUL.

ST. VINCENT DE PAUL, 1st April, 1909.

To the Warden:

I have the honour to submit you my third annual report of the French school and library for the year ending the 31 March, 1909.

In the course of the year twenty-eight convicts were registered for the school. The present attendance is thirteen and they are taught reading, spelling, and arithmetic.

The conduct of the men has been most satisfactory and the assistance very regular. I am pleased to say that good progress was made by the pupils.

Books, slates, slate pencils and copy books were supplied by Mr. O'Shea and myself to one hundred and sixty convicts for studying in their cells.

I beg to offer my sincere thanks to my superiors for their assistance in the discharge of my duties.

Yours sincerely,
G. J. RENEAULT,
French School Instructor.

ST. VINCENT DE PAUL, 1st April, 1909.

To the Warden:

I have the honour to submit you my annual report of the English school for the year ended the 31st March 1909.

During the year fifty pupils have been admitted to school. They were taught reading, spelling, writing and arithmetic.

The conduct of the men in class was good, they were attentive to the instructions given them, and they seemed to appreciate the privilege of attending school.

Books, slates, slate pencils and copy books were supplied by Mr. Reneault and myself to one hundred and sixty convicts to study in their cells.

I beg to express my sincere thanks to my superiors for the assistance given me in the discharge of my duties.

Yours respectfully,
D. O'SHEA,
English School Instructor.

Library returns for the year ended March 31st., 1909.:—

Number of volumes in library	3,994
Number of volumes added during the year	160
Number of convicts who have used books	450
Number of issues during the year	3,500

D. O'SHEA,
G. J. RENEAULT,
Librarians.

DORCHESTER.

DORCHESTER, N. B., April 1st., 1909.

To the Warden:

I have the honour to submit my annual report of the school and library in this penitentiary for the year ended March 31st, 1909.

At the beginning of the year the school was attended by forty-four pupils.

The present attendance is fifty-two, divided as follows:—

Reading, writing and arithmetic.....22
Reading and writing.....16
Reading only.....14

Eight were reading in the fifth English reader, twelve in the fourth, six in the third, ten in the second, six in the first and ten in the primers.

I am pleased to say that the majority of those attending school are making good progress and their conduct whilst at school is very satisfactory.

In conclusion I beg to express my sincere thanks to my superiors for the assistance given me in the discharge of my duties.

G. B. PAPINEAU,

School Instructor.

LIBRARY RETURNS.

	Total Number of Volumes in Library.	Number added during the Year.	Average Number of Convicts who used Books.	Total Number of Issues during the Year.
General library	867	8	189	19,656
Roman Catholic library	165	.....	25	650
Protestant library	112	.....	28	728
Total	1,144	8	.....	21,034

MANITOBA.

STONY MOUNTAIN, MAN., March 31., 1909.

To the Warden:

I have the honour to submit my annual report of the school of this institution for the fiscal year ended March 31st., 1909.

Of the nineteen pupils on the register during the year, 6 were Galicians, 3 French half-breeds, 1 German, 1 Russian, 1 French Canadian, 2 Greek, 1 Indian, 1 American, 2 Italians, and 1 English.

The attendance at the end of the year was eleven classified as follows:—

First Reader, Part I	1
First Reader, Part II	4
Second Reader, Part II	3
Third Reader, Part II	3

All are taught arithmetic and those in the third reader have lessons in geography. One hundred and ten convicts are at present supplied with school books and slates for the purpose of studying in their cells.

I am pleased to say that those attending school are making good progress and their conduct and attention while at school has been very good.

In conclusion, I beg to express my sincere thanks to yourself and my other superiors for the assistance given me in the discharge of my duties.

J. H. DAIGNAULT,

School Instructor.

LIBRARY RETURNS.

	Number of Volumes.	Condemned during Year.	Number of Convicts using Books.	Circulation.
General library	854	76	140	8,712
Roman Catholic library	96	.....	.....	.....
Protestant library	38	.....	.....	.....
	988	76		8,712

BRITISH COLUMBIA.

SAPPERTON, March 31st., 1909.

To the Warden:

I have the honor to submit my annual report of the school in this penitentiary for the year ending March 31st., 1909.

At the beginning of the year the school was attended by twenty-six pupils. The total enrolled during the period was thirty-six. Twenty-four passed out leaving a present attendance of thirty-eight. Classified as follows:—

Arithmetic and writing	1
Arithmetic only	4
Spelling and writing	4
1st Primer	5
2nd. Primer	5
2nd Reader	10
3rd " and Spelling	6
4th " "	3
Total	38

Ninety-four convicts are supplied with slates and books, for the purpose of studying in their cells. I am pleased to say that fair progress has been made and their conduct and attention to lessons very satisfactory. In August we occupied the new school-room which is more commodious and comfortable than the old quarters.

In conclusion I beg to express my sincere thanks to you and other officers for support in the discharge of my duties.

F. STEWART,

School Instructor.

LIBRARY RETURNS.

	Total Number of Volumes in Library, March 31, 1909.	Volumes added during Year.	Convicts using Books.	Circulation.
General library	1,328	110	179	15,300
Protestant library	214		2	27
Roman Catholic library	206	2	12	429
Officers' library	62			

NOTE—73 books and 65 volumes of magazines from the general library and 4 Italian books from the Roman Catholic library were condemned during the year.

F. STEWART,

Librarian.

ALBERTA.

EDMONTON, ALTA., March 31st., 1909.

To the Warden:

I have the honour to submit my 3rd annual report of the school of this institution for the fiscal year ending March 31st, 1909.

At the beginning of the year there were 20 pupils on the roll. 22 names were added during the year and 25 passed out, leaving at present an attendance of 17, classified as follows:—

Primer	6
First Reader	8
Second Reader	3
	17

The conduct of the pupils has been excellent and very fair progress has been made in reading, writing, spelling and arithmetic.

Very good use has been made of the library which includes, besides the 740 volumes by standard authors, 8 copies of current monthly magazines. These latter are especially appreciated and enjoyed.

In conclusion I beg to tender you and my other superior officers, my sincere thanks for the assitance given me in the discharge of my duties.

S. J. TRUSCOTT,

School Instructor.

APPENDIX F.

MATRONS' REPORT

KINGSTON.

KINGSTON, March 31st., 1909.

To the Warden:

I beg to submit my annual report of the female ward of the penitentiary for the year ending March 31st, 1909.

The industry of the prisoners has been very good:

During the year the movement of convicts was as follows:—

In custody March 31st, 1908		12
Received from common jails		2
Received from other penitentiaries		4
		18
Discharged:—		
By expiration of sentence	3	
" parole	1	
" death	1	
		5
Remaining March 31st, 1909, in female ward		12
Remaining March 31st, 1909, in asylum		1
		13

Respectfully submitted,

R. A. FAHEY,
Matron.

WORK DONE IN FEMALE WARD, FOR YEAR ENDING MARCH 31st, 1909.

Number of Articles.		Equal to Days	Rate per Day.	Amount.	Total.
	For Male Department.			$ cts.	$ cts.
234	Night shirts	234	.20	46.80	
2,498	Towels	208	"	41.60	
372	Pairs socks	744	"	148.80	
49	Contract shirts	49	"	9.80	
360	Sheets	90	"	18.00	
454	Pillowslips	50	"	10.00	
1,100	Handkerchiefs	92	"	18.40	
104	Bedticks	17	"	3.40	
2	Table cloths	1	"	.20	
24	Napkins	1	"	.20	
174	Bandages for hospital	8	"	1.60	
	Laundry for mess, etc	122	"	24.40	
	Customers' laundry	.....	.....	72.00	
					$395.20
	For Female Prison.				
	Making clothing, washing, cooking and cleaning, etc.	1,688½	"	337.70	
3	Outfits for discharged	18	"	3.60	$341.30
	Total	3,322½	.....	.....	$736.50

R. A. FAHEY,
Matron.

DORCHESTER.

DORCHESTER, N. B., April 14th, 09.

To the Warden:

I have the honour to present my report of the female ward for the year ended March 31st, 1909.

On March 31st, 1908, there were fifteen female prisoners. Since then three have been discharged by expiration of sentence, one paroled, one died, and five received, leaving seventeen at present in this department.

I am pleased to say that the industry of the women has been very satisfactory and their conduct with few exceptions, fairly good.

E. McMAHON,

Matron.

RETURN OF WORK DONE IN FEMALE WARD.

Number of Articles.		Equal to days.	Rate per day.	Amount.	Total.
	For Male Department.		$ cts.	$ cts.	$ cts.
300	Pairs socks	220	.20	44.00	
6,548	" socks, repaired	1,357	.20	271.40	
209	Towels	11½	20	2.30	
408	Sheets	83	.20	16.60	
306	Pillow cases	64	.20	12.80	
4	Table cloths	1	.20	.20	
1	Mat for store	25	.20	5.00	
3	Mats (Revenue)	1½	.20	.30	
	Washing for officials (revenue)	97½	.20	19.56	
					$372.16
	For Female Prison.				
4	Outfits for discharged	24	.20	4.80	
	Making clothing, washing, cooking, etc	1,176	.20	235.20	
					240.00
					$612.16

ALBERTA.

EDMONTON, ALTA., April 1st, 1909.

To the Warden:

I have the honor to submit my annual report for the year ended March 31st, 1909.

During the year the movement of convicts was as follows:-

Remaining in ward, March 31st., 1909		3
Received from British Columbia	1	
Received from Saskatchewan	1	2
		5
Released on parole	1	1
Remaining in ward March 31st, 1909		4

Their industry has been everything that could be desired, and conduct eminently satisfactory.

GERTRUDE L. STEDMAN,
Matron.

RETURN OF WORK DONE IN FEMALE WARD.

Number of Articles.		Equal to days.	Rate per day.	Amount.	Total.
	Work done for Male Prison.		$ cts.	$ cts.	$ cts.
104	Shirts	20½	.20	4.10	
96	Mitts, pairs	95	.20	19.00	
111	Caps	17	.20	3.40	
72	Gloves, "masons"	6¼	.20	1.25	
6	Aprons, cooks	½	.20	10	
6	Shirts, night	3	.20	60	
22	Shirts, freedom	8¼	.20	1.65	
63	Duffles	2¾	.20	.55	
4	Sleeve protectors	½	.20	.10	
371	Towels	8	.20	1.60	
342	Bandages	1	.20	.20	
5	Socks, pairs	9½	.20	1.90	
4,771	Repairs to underwear	166¼	.20	33.25	
					$67.70
	Custom Work.				
11	Shirts, day	5½	.20	1.10	
3	" night	1½	.20	.30	
9	Mitts, pairs	4½	.20	.90	
2	Stockings, pairs	3	.20	.60	
6	Pants, "Boys"	4	20	.80	
					$3.70
	Work done for Female Ward.				
1	Discharge outfit	6	.20	1.20	
	Making clothing, washing, cleaning, etc.	499	.20	99 80	
					$101.00
					$172 40

APPENDIX G.

CRIME STATISTICS

MOVEMENTS OF CONVICTS.

KINGSTON.

	Male.	Female.	Total.	Male.	Female.	Total.
In custody, March 31, 1908				476	12	488
Received since—						
From common jails	226	2	228			
" other penitentiaries	10	4	14			
" forfeiture of parole	3		3	239	6	245
				715	18	733
Discharged since—						
By expiration of sentence	89	3	92			
" pardon	2		2			
" parole	58	1	59			
" death	7	1	8			
" deportation	2		2	158	5	163
In custody, March 31, 1909				557	*13	570

* Including one in an outside asylum.

ST. VINCENT DE PAUL.

	Male.	Female.	Total.	Grand Total.
In custody, March 31st, 1908			401	
Received from common jails	272	4	276	
Paroles forfeited	3		3	
Parole revoked	1		1	681
Discharged during the year—				
By expiration of sentence	107			
" pardon	2			
" parole	42			
" deportation	3			
" death	7			
" transfer to Kingston	6	4		
	167	4		171
In custody, March 31st, 1909				510

DORCHESTER.

	Male.	Female.	Total.	Male.	Female.	Total.
In custody, March 31st, 1908	220	15	235			
Received since—						
From common jails	112	7	119			
				332	22	354
Discharged since—						
By expiration of sentence	45	3	48			
" parole	53	1	54			
" pardon	2	.....	2			
" deportation	3	.....	3			
" deaths	.....	1	1			
				103	5	108
In custody, March 31st, 1909				229	17	246

MANITOBA.

In custody March 31st., 1908		120
Received since—		
From common jails	71	
By forfeiture of license	2	
Revocation of license	2	
Re-captured, (escaped, December 1905, and September 1908)	2	
	——	77
		197
Discharged since—		
By expiration of sentence	24	
" parole	21	
" pardon	1	
" escape	†1	
" deportation	2	
" transfer to Kingston Penitentiary	4	
	——	53
In custody March 31st., 1909		*144

*This includes one convict in the Selkirk Asylum.

†Recaptured.

BRITISH COLUMBIA.

	Male.	Female.	Total.	Grand Total.
In custody, March 31st, 1908	152		152	
Received since—				
From common jails	108	1	109	
Recaptured [1]	4		4	
				265
Discharged since—				
By expiration of sentence	18			
" pardon	4			
" parole	28			
" escapes [2]	3			
" death	4			
" order of court	3		60	
" transfer		1	1	
				61
In custody, March 31st, 1909				204

[1] Convict Kelly, escaped August, 1907; convict Clarke, escaped August, 1907; convict Skelton, escaped February, 1909, and convict Mullin escaped March, 1909.

[2] Two re-captured.

ALBERTA.

	Male.	Female.	Total.	Male.	Female.	Total.
In custody, March 31st, 1908	77	3	80			
Received since—						
From common jails	57	1	58			
by revocation of license	1	0	1			
Transfer	0	1	1			
				135	5	140
Discharged since—						
By expiration of sentence	2	0	2			
" parole	39	1	40			
" pardon	3	0	3			
" deportation	3	0	3			
" death	1	0	1			
				48	1	49
In custody, March 31st, 1909				87	4	91

MOVEMENTS OF CONVICTS FOR PAST TEN YEARS.

KINGSTON.

Years.	Admissions.			Discharges																						Daily Average
				Expiry of Sentence.		Pardons.		Deaths.		Parole.		Returned to Jail.		Escapes.		Other Penitentiaries.		Removed by Order of Court.		Transfers to Asylums.		Total.			Remaining at end of Year.			
	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.		Male.		Male.		Male.		Male.	Female.	Male.	Female.	Total.	Male.	Female.	Total.	
												Deported		Removal by Order of Minister														
												M	F															
1899–00	176	3	179	132	11	25	....	13	....	20	....	1	....	....	....	....	....	....	....	....	....	191	11	202	536	11	537	555
1900–01	138	9	147	108	4	15	....	13	....	46	1	....	....	....	....	1	....	....	....	....	....	183	5	188	491	15	506	537
1901–02	131	6	137	107	2	15	2	6	....	45	1	....	....	1	2	1	....	....	....	....	....	177	6	183	445	15	460	490
1902–03	129	3	132	86	4	10	1	11	....	34	....	....	....	....	2	1	....	....	....	....	....	144	5	149	430	13	443	455
1903–04	151	4	155	90	4	6	2	13	....	31	....	....	....	....	3	1	....	....	....	....	....	144	6	150	437	11	448	451
1904–05	136	3	139	83	3	14	1	6	....	27	2	....	....	....	1	....	1	1	....	....	....	132	7	139	441	7	448	443
1905–06	163	5	168	88	2	9	....	9	....	47	....	....	....	....	....	....	....	1	....	....	....	154	2	156	450	10	460	455
1906–07	109	6	115	54	1	13	....	7	....	37	1	....	....	....	1	1	2	....	....	....	....	115	2	117	444	14	458	461
1907–08	175	6	181	74	2	8	1	5	1	52	1	1	1	1	2	1	....	....	1	....	....	143	8	151	476	12	488	463
1908–09	239	6	245	89	3	2	....	7	1	58	1	2	....	....	....	....	....	....	....	....	....	158	5	163	557	13	570	535

ST. VINCENT DE PAUL.

Years.	In Custody beginning of year.	Admissions.							Discharges.											Remaining at end of Year.	Daily Average.
		Common Jail.		Reformatory.	Other Penitentiaries.	Grand Total.			Expiration of Sentence.	Pardoned.	Parole.	Deaths.	Escape.	Transferred to other Penitentiaries.		Deported.	Total.				
	Male.	Male.	Female.	Male.	Male.	Male.	Female.	Total.	Male.	Male.	Male.	Male.	Male.	Male.	Female.	Male.	Male.	Female.	Total.	Male.	
1899–00	447	181	1	....	....	181	1	182	99	17	28	3	....	18	1	....	165	1	166	463	449
1900–01	463	157	4	6	1	164	4	168	110	4	43	4	1	15	4	....	179	4	183	448	455
1901–02	448	108	3	....	2	110	3	113	142	12	58	3	....	1	3	....	216	3	219	345	384
1902–03	345	130	4	....	1	131	4	135	100	9	28	1	....	4	3	....	142	3	145	335	336
1903–04	335	124	1	3	35	162	1	163	81	5	35	2	1	7	2	....	131	2	133	365	346
1904–05	365	135	1	....	....	135	1	136	87	18	33	2	1	2	1	....	143	1	144	357	365
1905–06	357	178	....	....	....	178	....	178	68	4	46	3	....	4	....	....	125	....	125	410	380
1906–07	410	118	3	1	1	120	3	123	85	5	32	3	....	2	3	1	128	3	131	402	403
1907–08	402	168	4	....	2	170	4	174	116	5	45	1	....	2	4	2	171	4	175	401	392
1908–09	401	276	4	....	....	276	4	280	107	2	42	7	....	6	4	3	167	4	171	510	457

DORCHESTER.

Years.	In Custody, beginning of year.			Admission.											Discharged.																		Remaining at the end of Year.			Daily average.
				Common Jails.		Military Prison.	Insane Asylum.	Other Penitentiaries.	Forfeiture of Parole.	Total.			Expiry of Sentence.		Pardon.	Parole.		Returned to jail being insane on admission.	Deaths.		Deported.	Removed by Order of Court.	Other Penitentiaries	Total.												
	Male.	Female.	Total.	Male.	Female.	Male.	Male.			Male.	Female.	Total.	Male.	Female.	Male.	Male.	Female.	Male.	Male.	Female.	Male	Male.	Male.	Male.	Female.	Total.	Male.	Female.	Total.							
1899-00	222	4	226	78	2	1	....	....	....	79	2	81	59	....	15	20	....	....	5	....	....	....	4	103	....	103	198	6	204	220							
1900-01	198	6	204	80	3	3	....	....	....	84	3	87	48	....	8	15	1	1	8	....	....	....	....	80	1	81	202	8	210	210							
1901-02	202	8	210	105	4	5	1	....	1	112	4	116	64	5	4	32	1	1	3	1	....	3	2	109	7	116	205	5	210	214							
1902-03	205	5	210	99	5	8	....	1	....	108	5	113	43	....	7	30	....	....	1	1	....	1	3	85	1	86	228	9	237	221							
1903-04	228	9	*237	104	5	4	....	....	....	108	5	113	42	2	10	37	....	....	2	....	....	7	....	98	2	100	238	12	250	244							
1904-05	238	12	250	88	4	9	....	1	2	100	4	104	65	2	5	40	3	....	....	....	....	5	1	116	5	121	222	11	233	251							
1905-06	222	11	233	87	7	1	....	....	2	89	8	97	49	5	10	46	3	....	2	....	....	1	3	111	8	119	200	11	211	229							
1906-07	182	12	194	60	4	....	....	....	4	64	4	68	36	3	5	40	1	....	....	....	....	....	....	81	4	85	182	12	194	203							
1907-08	182	12	194	112	8	....	....	....	....	112	8	120	30	5	5	36	....	....	2	....	1	....	....	74	5	79	220	15	235	211							
1908-09	220	15	235	112	7	....	....	....	....	112	7	119	45	3	2	53	1	....	....	1	3	....	....	103	5	108	229	17	246	240							

*Including one from Reformatory.

Years.	In Custody beginning of year.	Admissions.							Discharges.												In custody at the end of year.		Daily Average.
		Common Jails.		Other Penitentiaries.	Recaptured.	Total.			Expiry of Sentence.	Pardoned.	Transferred other Penitentiaries.		To Lunatic Asylum.	Escapes.	Parole.	Deaths.	Deportation.	To Prov. Authorities	Total.				
		Male.	Female.		Male.	Male.	Female.	Total.	Male.	Male.	Male.	Female.	Male.	Male.	Male.	Male.	Male.	Male.	Male.	Female.			
1899–00	112	31	1	....	2	33	1	34	16	8	11	1	....	2	2	....	....	....	39	1	106	....	
1900–01	106	45	....	....	....	45	..	45	25	3	....	....	....	....	....	1	....	....	34	..	117	110	
1901–02	117	35	....	....	....	35	..	35	27	7	1	....	....	....	11	1	....	....	47	..	105	109	
1902–03	105	78	....	....	....	78	..	78	32	4	....	....	....	....	6	1	....	....	43	..	140	120	
1903–04	140	111	2	....	2	113	2	115	39	6	37	2	....	2	10	3	....	....	97	2	156	144	
1904–05	156	103	1	1	....	103	2	105	40	11	....	1	1	2	14	2	....	....	70	1	190	177	
1905–06	190	109	2	....	....	109	2	111	47	6	....	2	....	2	25	3	....	....	83	2	216	203	
1906–07	216	44	....	....	1	45	..	45	26	3	24	....	....	....	31	2	....	....	86	..	175	191	
1907–08	175	42	....	....	....	42	..	42	44	3	4	....	....	....	40	2	3	1	97	..	120	140	
1908-09	120	75	....	....	[3]2	77	..	77	24	1	4	....	....	[3]1	21	....	2	....	53	..	[2]144	129	

[1] 2 licenses revoked; also 2 licenses forfeited and extra sentence.

[2] Including one convict at Insane Asylum, Selkirk.

[3] One Escaped in December, 1905,and 1 escaped and recaptured in September, 1908.

Years.	In custody, beginning of year.	Admissions.								Discharges.														In Custody at end of Year.			Daily Average.
		From Common Jails.		Other Penitentiaries.		Recaptured.	Returned by Order of Court.	Total.		By Expiration of Sentence.	By Pardon		Death.	Sent to Asylum	Escaped.	Returned to Prov. jails.	Paroled.	Transfers.		Removed by Order of Court.	Total.						
		Male.	Female.			Male.	Male.	Male.	Female.	Total.	Male.	Male.	Female.	Male.	Male.	Male.	Male.	Male.	Female.	Male.	Male.	Female.	Total.	Male.	Female.	Total.	
1899–00	90	48	2					48	2	50	28	4	1	1			1	1				35	1	36	103	1	104	93
1900–01	104	46	1			1		47	1	48	28	6					1	12	2	2		49	2	51	101		101	93
1901–02	101	32					1	33		33	24	3					1	9	2		1	40		40	94		94	97
1902–03	94	47					1	48		48	25	4		1			1	15			2	47		47	95		95	93
1903–04	95	44		7				51		51	22	3		2	1			9				37		37	109		109	102
1904–05	109	59						59		59	17	1		1			2	7			1	29		29	139		139	123
1905–06	139	49					1	50		50	25	9						12			1	47		47	142		142	140
1906–07	142	34						34		34	26	2						9			2	39		39	137		137	134
1907–08	137	83	1					83	1	84	31	3		2		6		24		1	2	68	1	69	152		152	142
1908–09	152	108	1			4		112	1	113	18	4		4		3		28		1	3	60	1	61	203	1	204	178

ALBERTA.

Years.	Admissions.			Discharges.																Remaining end of Year.			Daily Average.
				Expiration of Sentence.		Pardon.		Parole.		Deported.		Transfers		Escape.		Death.		Total.					
	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	
1906-07	66	...	66	1	...	1	...	6	...	...	...	...	...	...	...	...	...	9	...	57	...	57	41
1907-08	45	3	48	1	...	...	...	17	...	1	...	1	...	1	...	...	...	25	...	77	3	80	70
1908-09	58	2	60	2	...	3	...	39	1	3	...	...	...	...	...	1	...	48	1	87	4	91	86

CRIMINAL RECORD.

KINGSTON.

	Terms.	Penitentiary.			Provincial Reformatory.			Foreign Prison.			Provincial Prison.			District or County Jail.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Convicts serving	1st	481	12	493	25	1	26	4	....	4	70	....	70	21	1	22
"	2nd	51	....	51	2	....	2	1	....	1	24	....	24	3	....	3
"	3rd	17	....	17	....	1	1	....	....	....	7	....	7	....	....	..
"	4th	7	1	8	....	....	....	1	....	1	5	....	5	1	....	1
"	5th	1	....	1	....	....	....	....	....	....	1	....	1	1	1	2
"	6th	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Total		557	13	570	27	2	29	6	....	6	107	....	107	27	2	29

ST. VINCENT DE PAUL.

Convicts serving	1st	365	....	365	44	....	44	7	....	7	....	....	....	114	....	114
"	2nd	92	....	92	....	....	....	3	....	3	....	....	....	58	....	58
"	3rd	36	....	36	....	....	....	2	....	2	....	....	....	26	....	26
"	4th	12	....	12	....	....	....	....	....	....	....	....	....	6	....	6
"	5th	3	....	3	....	....	....	....	....	....	....	....	....	4	....	4
"	6th	2	....	2	....	....	....	....	....	....	....	....	....	8	....	8
"	7th	....	....	....	....	....	....	....	....	....	....	....	....	3	....	3
"	8th	....	....	....	....	....	....	....	....	....	....	....	....	4	....	4
"	10th	....	....	....	....	....	....	....	....	....	....	....	....	2	....	2
"	11th	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
"	12th	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
"	15th	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Total		510	....	510	44	....	44	12	....	12	....	....	....	228	....	228

RECAPITULATION.

Convicts serving	1st	term in penitentiary	365
"	2nd	"	92
"	3rd	"	36
"	4th	"	12
"	5th	"	3
"	6th	"	2
Total			510

DORCHESTER.

	Terms.	Penitentiaries.			Reformatories.			Foreign Prisons.			Provincial Prisons.			County Jails.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Convicts serving	1st...	173	16	189	13	....	13	1	....	1	6	....	6	34	7	41
"	2nd...	48	1	49	2	....	2	1	....	1	....	....	....	30	3	33
"	3rd ..	4	....	4	....	....	....	....	....	....	....	....	....	8	....	8
"	4th ..	3	....	3	....	....	....	....	....	....	....	....	....	....	....	....
"	5th ..	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....
"	6th ..	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Total..		229	17	246	15	....	15	2	....	2	6	....	6	73	10	83

MANITOBA.

Convicts serving	1st...	116			2			5			6					
"	2nd...	19	....	....	....	....	....	....	....		2	....	....	....	....	....
"	3rd ..	6	....	....	....	....	....	....	....		2	....	....	....	....	....
"	4th ..	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals		144			2			5			10					

BRITISH COLUMBIA.

Convicts serving	1st...	188	....	188	....	....	....	4	....	4	10	....	10	....	....	....
"	2nd...	15	....	15	....	....	....	1	....	1	1	....	1	....	....	....
"	3rd ..	1	....	1	....	....	....	....	....	....	2	....	2	....	....	....
Total..		204	....	204	....	....	....	5	....	5	13	....	13	....	....	....

ALBERTA.

Convicts serving	1st ..	80	4	84	1	....	1	4	....	4	....	....	....	20	1	21
"	2nd...	6	....	6	....	....	....	....	....	....	....	....	....	....	....	....
"	3rd ..	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....
Total		87	4	91	1	....	1	4	....	4	....	....	....	20	1	21

RECOMMITMENTS.

KINGSTON.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
Joseph Bone	1	Forfeiture parole	Stratford	July 10, 1905	2 years 2 months 24 days.
Samuel Betts (Lester)	2	Stealing	Toronto	March 25, 1908	3 years.
Richard Taggert	1	Theft of grain	Cayuga	April 28, 1908	5 "
Joseph Fedro	1	" and forfeit parole	"	" 28, 1908	11 " 6 months 18 days.
John Steen	1	Forfeiture parole	Toronto	Dec. 31, 1904	1 year. 5 months 15 days.
George Slack	1	Robbery	"	May 15, 1908	Life.
Wm. O'Connor	2	Assault and robbery	Hamilton	" 19, 1908	7 years. Lashes.
Wm. J. Moran	1	Stealing and forfeit parole	Ottawa	June 13, 1908	4 years. 2 months 24 days.
Geo. Bouchard	1	Forgery and forfeit parole	"	July 3, 1908	4 years. 8 months 11 days.
John Malyea	1	House-breaking with intent	Port Hope	" 15, 1908	5 years.
Lawrence Corcoran (Hughes, Shea, Williams)	2	Theft	Ottawa	August 6, 1908	5 "
Albert Wanamaker	2	Assault	Sarnia	" 1, 1908	2 "
Geo. (Hiram) Smith	2	Theft	Hamilton	Sept. 1, 1908	2 "
James Baldwin	2	Assault and robbery	Peterborough	" 4, 1908	7 "
A. H. Chamberlain	2	Obtained money by false pretences	Ottawa	" 15, 1908	2½ "
Stephen Lumley	1	Forfeiture parole	Sarnia	Dec. 12, 1906	1 year. 7 months 23 days.
Malcolm Muir	1	Horse-stealing	Barrie	Nov. 4, 1908	3 years.
Norman Staley	2	Theft	Kingston	" 16, 1908	2 "
Joseph Gillies	4	House-breaking and theft	Brantford	Dec. 3, 1908	5 "
Patrick White (Jas. O'Brien)	1	Stealing	Pembroke	" 4, 1908	5 "
Frederick Wylie (Davis & Webb)	1	House-breaking and theft	Toronto	Jan. 12, 1909	3 "
William Cheevers	1	Burglary	Brantford	" 25, 1909	3 "
George Brett	1	" and ind. assault	Brampton	" 25, 1909	7 "
George Brown (Partridge & Denton)	3	Horse-stealing	Toronto	" 25, 1909	5 "
W. Henry Simmonds	1	Shop-breaking and theft	"	Feb. 10, 1909	3 "
Geo. F. Hunt	1	Arson	Oshawa	" 25, 1909	3 "
Jas. McInerney	1	Robbery	Hamilton	March 2, 1909	5 "
Jno. O'Brien (Shea & Williams)	2	Burglary	Guelph	" 12, 1909	7 "
Alfred Johnston	1	Theft	London	" 13, 1909	2 "

ST. VINCENT DE PAUL.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
Belanger, Edmond	3	Theft	Richelieu	July 16, 1908	5 years.
Brisette, Albert	1	"	Montreal	October 9, 1908	2 "
Blondin, Jean Baptiste	1	House-breaking	Terrebonne	" 27, 1908	4 "
Beauchamp, Joseph	1	Shop-breaking	Montreal	Feb. 2, 1909	2 "
Cyr, Henri	1	Aggravated robbery	"	June 25, 1908	8 "
					3 months
					21 days.
Charlebois, Henri	2	Attempt to commit murder	"	" 25, 1908	7 years.
Crepeau, Wilfrid	1	Theft	"	October 6, 1908	3 "
Chevalier, Adolphe	2	"	"	Jan. 19, 1909	5 "
Dease, William	4	Shop-breaking	"	April 21, 1908	7 "
Durand, Telesphore	1	Theft	"	June 19, 1908	3 "
Desormiers, Joseph	1	"	"	October 8, 1908	2 "
Desjardins, Alexandre	1	Shop-breaking	"	Nov. 12, 1908	2 "
Day, William	1	House-breaking	"	Dec. 16, 1908	5 "
Day, Charles	1	"	"	" 16, 1908	4 "
Durette, Guillaume	1	Theft on the person	"	" 30, 1908	4 "
Dubeau, Joseph	2	House-breaking	"	January 8, 1909	4 "
Driscoll, Patrick	1	False pretence	"	" 19, 1909	2 "
Dubuc, Amédée	2	Theft	"	Feb. 4, 1909	3 "
DeLaSablonnière, Napoléon	2	Shop-breaking with intent	"	March 23, 1909	2 "
Ethier, Charles	2	Shop-breaking	"	" 31, 1909	3 "
Forest, Thomas	2	Theft	"	October 8, 1908	2 "
Finn, Daniel	1	"	"	Dec. 24, 1908	4 "
Fraser, George	2	Shop-breaking	St. Francis	Feb. 19, 1909	2 "
Giroux, Edward	3	Theft	Montreal	October 8, 1908	2 "
Hoolahan, Peter	1	Shop-breaking	"	April 21, 1908	4 "
Herpool, Pierre, F.R	1	False pretence	"	Sept, 10, 1908	3 "
Hogan, William	1	Receiving stolen goods	"	October 22, 1908	2 "
Larivée, Joseph	5	Theft on the person	"	March 31, 1908	5 "
Laviollette, Albert	1	Shop-breaking	"	June 4, 1908	3 "
Lapointe, Flavien	2	Theft	"	" 25, 1908	3 "
Lespérance, James	1	"	"	August 31, 1908	2 "
Longpré, Pierre	1	"	"	Sept. 14, 1908	2 "
Leithead, Thomas	1	Receiving stolen goods	"	" 17, 1908	7 "
Leithead, James	1	"	"	" 17, 1908	7 "
Lalonde, George	1	Shop-breaking	"	Dec. 4, 1908	5 "
Leduc, Arthur	1	Theft on the person	"	January 27 1909	4 "
Lalonde, Emery	1	Theft	"	Feb. 4, 1909	4 "
Lepine, J. Arthur	1	"	"	" 16, 1909	2 "
McCarthy, James	1	"	"	April 2, 1908	2 "
Monette, Alexandre	4	" on the person	"	" 16, 1908	2 "
Milks, George	1	Shop-breaking	"	" 21, 1908	4 "
Moore, Edward B	1	"	"	" 21, 1908	10 "
Murray, Arthur	1	Theft	"	May 1, 1908	8 "
Meilleur, Joseph	1	Shop-breaking	Bedford	" 14, 1908	2 "
Moreau, Francis	1	"	Montreal	June 4, 1908	3 "
Massy, Henri O	3	Theft	"	Feb. 15, 1909	4 "
Osborne, James	2	"	"	January 7, 1909	3 "
Payette, Arthur	1	Attempt to rape and rob	"	April 21, 1908	9 "
Payeur, Charles	1	Theft	"	May 12, 1908	2 "
Paris, Cleophas	1	"	"	October 9, 1908	2 "
Parker, James	1	Shop-breaking	"	January 29 1909	4 "
Power, Joseph	1	Theft from railway car	"	March 30, 1909	3 "
Rousseau, Edouard C	1	Breaking and entering to commit theft	"	Sept. 17, 1908	3 "
Robitaille, Albert	2	Theft	"	" 17, 1908	7 "
Savard, Adelard	1	Aggravated robbery	"	March 30, 1905	5 "
Sauvé, Emile	1	Shop-breaking	"	October 6, 1908	4 "
Tremblay, Alfred	1	Theft	Ottawa	January 15, 1909	2 "
Vermette, Elzear	4	"	Quebec	April 23, 1908	3 "
Vinet, Alphonse	1	Theft by servant, conspiracy and damage	Montreal	Nov. 19, 1908	2 "
Vendal, Ovila	1	Shop-breaking	"	Dec. 16, 1908	6 "
					1 month,
					23 days.
Vinet, Emile	1	Shop-breaking	"	January 29, 1909	4 years.

DORCHESTER.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
Thomas Eva	3	Forgery	Halifax	March 27, 1908	5 years. 4 months 21 days.
John Allan alias Elliott	1	Stealing	St. John	" 30, 1908	4 years.
Jeremiah Daley	1	"	"	" 30, 1908	4 " 8 months
Chas. McQuinn	1	Obtaining money by false pretences	Colchester, N.S.	June 6, 1908	3 years.
John O'Brien	1	Escaping from custody	St. John	May 27, 1908	2 "
Harry Nortman alias Vancin	1	Stealing	Inverness, N.S	June 16, 1908	3 "
Chas. McKenzie	1	Robbing and wounding	Cape Breton	July 9, 1908	3 "
John Waterfield	1	Breaking, entering and stealing	Halifax	June 8, 1908	4 "
Thomas O'Toole	1	Stealing	North Co., N.B.	July 31, 1908	8 " 6 months
Frank St. Claire alias Baudin	1	"	Charlotte Co., N.B.	August 27, 1908	5 years.
James Hamitlon alias Geo. Morton	1	Breaking, entering and stealing	Digby Co., N.S.	Sept. 3, 1908	4 "
Jas. Kelly alias Jas. McDonough	1	Stealing	North Co., N.B.	" 11, 1908	2 "
William Taylor	1	Theft	Cumb. Co., N.S.	October 6, 1908	2 "
Olaf Larson	1	"	West Co., N.B.	Nov. 2, 1908	2 "
Arthur Wilson alias Jno. McCormack	1	Breaking, entering and stealing	Restigouche, Co.	" 11, 1908	7 "
Geo. Griffith	1	Attempted rape	Cape Breton	" 2, 1908	5 "
Herbert Wiseman alias Wm. Harris	1	Breaking, entering and stealing	Inverness, N.S	" 17, 1908	4 "
Arthur Burnley	1	Stealing	Halifax, N.S.	January 7, 1909	2 "
James Drake alias Rennie	1	Perjury	Cape Breton	Feb. 18, 1909	5 "

MANITOBA.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
L. Sangret	1	Horse stealing	Moosomin	Sept. 13, 1904	7 years.
T. Collins	1	Theft	Winnipeg	April 6, 1905	5 "
J. Manley	3	Shop-breaking and theft	Red Deer	May 31, 1905	5 "
R. Milsome	2	"	Winnipeg	August 3, 1905	5 "
E. Murphy	1	Shop-breaking	Brandon	October 9, 1905	14 "
J. B. Faucheneuve	1	Stealing a horse	Macleod	" 20, 1905	10 "
E. Larsen	1	Shop-breaking and theft	Winnipeg	May 17, 1906	4 "
J. F. Black	1	Forgery and uttering	"	June 25, 1906	5 "
C. Johnson	2	Shop-breaking and theft	"	October 13, 1906	3 "
A. Marcotte	2	Robbery	"	" 26, 1906	7 "
D. Etienne	2	Shop-breaking with intent	"	Nov. 1, 1906	5 "
J. Thompson	3	House-breaking and theft	"	Nov. 1, 1906	7 "
P. Hansen	1	Horse-stealing, arson and killing animals	Morden	" 12, 1906	14 "
M. M. Mitchell	1	Forgery and uttering	Winnipeg	March 16, 1907	3 " 6 months
J. W. Stott	1	Shop-breaking and theft	"	June 3, 1907	3 years
E. Cameron	1	Obstructing a peace officer	"	July 13, 1907	2 "
J. G. Stirling	1	House-breaking and theft	"	May 14, 1907	24 "
E. C. S. Hoover	1	Robbery with violence	Brandon	August 30, 1907	2 "
F. Hamelin	1	Horse-stealing	Winnipeg	Sept 3, 1907	2 "
L. Lafontaine	1	Horse-stealing	Morden	" 7, 1907	5 "
T. W. Brown	3	Theft; obtaining signature by false pretences	Winnipeg	March 12, 1908	7 "
R. Cyncar	1	Shop-breaking and theft	"	May 22, 1908	2 years & license revoked
N. Heritage	2	Forgery and uttering	"	Sept. 8, 1908	2 years.
J. Allan	1	Forgery and uttering	"	Nov. 13, 1908	5 "
G. Carter	1	Theft	"	Dec. 21, 1908	2 "
J. Brennan	1	"	"	January 5, 1909	2 "
G. Reddler	2	Receiving stolen goods	"	" 14, 1909	2 "
J. Lawrence	1	Robbery	"	Feb. 5, 1909	3 " & license revoked.

BRITISH COLUMBIA.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
Thompson, A.L.	1	Theft	Vancouver	October 24, 1905	5 years.
Sook, Sais	1	Murder	"	" 2, 1906	Life.
Duteau, Alex	1	House-breaking and stealing	Vernon	" 9, 1906	7 years.
Spuzzum, Jimmy	1	Rape	New Westminster	" 23, 1906	Life.
Wah, Sing	2	Unlawful possession	Vancouver	Feb. 5, 1907	5 years.
Stone, George	1	Stealing and assault	"	March 25, 1907	12 "
Ah, Sam	1	Breaking, entering and stealing	"	May 20, 1907	3 "
Plump, Fritz	1	Rape	Nanaimo	October 22, 1907	15 "
Bradley, Norman	1	Uttering	Victoria	May 27, 1908	2 "
Shay, Michael	1	Stealing	Golden	October 13, 1908	2 "
Nelee, Jos †	1	House-breaking	Lytton	" 13, 1908	11 " 2 months 10 days.
Kiley, Morrice	1	Breaking and entering	Vancouver	January 16 1909	5 years.
Willsie, R.	1	Attempt to utter	"	Feb. 11, 1909	3 "

†Forfeiture of license and five-year term.

ALBERTA.

Name.	Recommitments.	Crime.	Where sentenced.	Date of sentence.	Term.
Everett P. Neal	1	Burglary and theft and attempt to escape	Calgary	Nov. 22, 1906	6 years, 6 months
Charles Young	1	Horse stealing	Macleod	March 4, 1907	5 years.
Clyde Maitland alias Charles Burkhardt	1	Theft	Wetaskiwin	Dec. 11, 1907	2 "
David A. Clark	1	Horse-stealing	Moosomin	March 5, 1908	3 "
Thomas Percell	1	Horse stealing	Macleod	Nov. 24, 1908	2 "
James McQuillan	2	Burglary	Macleod	" 21, 1908	8 "
Charles J. Clark	1	Horse stealing	Edmonton	Feb. 10, 1909	3 "

WHERE SENTENCED.

KINGSTON.

Where sentenced.	Male.	Female.	Total.	Where sentenced	Male.	Female.	Total.
Algoma	21		21	Renfrew	10		10
Brant	6		6	Simcoe	9		9
Bruce	3		3	Stormont, Dundas and Glengarry	6		6
Carleton	23		23	Sudbury	14		14
Dufferin	2		2	Thunder Bay	10		10
Elgin	9		9	Victoria	3		3
Essex	18		18	Waterloo	12		12
Frontenac	7		7	Welland	7		7
Grey	7		7	Wellington	7		7
Haldimand	8		8	Wentworth	35		35
Halton	2		2	York	100	3	103
Hastings	18		18	Lytton, B.C	1		1
Huron	1		1	Portage la Prairie, Man	1		1
Kent	16	1	17	Kamouraksa, Que	1		1
Lambton	12		12	Montreal	7	6	13
Lanark	5		5	Pontiac, Que	1		1
Leeds and Grenville	12		12	Brandon, Man	2		2
Lennox and Addington	8		8	Winnipeg	5	1	6
Lincoln	6		6	Amherst, N.S	1		1
Middlesex	36		36	Halifax, N.S	2		2
Manitoulin	1		1	Golden, B.C	1		1
Muskoka	4		4	New Westminster, B.C	1		1
Norforlk	4		4	Dawson, Y.T	1		1
Nipissing	7		7	Fredericton, N.B	1		1
Northumberland and Durham	5		5	Beauharnois, Que	1		1
Ontario	5		5	Antigonish, N.S	1		1
Oxford	22		22	Quebec	2		2
Parry Sound	10		10	Thetford Mines, Que		1	1
Peel	4		4	Montgomery, Que	1	1	2
Perth	8		8	Regina, Sask	1		1
Peterborough	9		9	Bryson, Que	1		1
Prince Edward	2		2				
Rainy River	11		11	Total	557	13	570

ST. VINCENT DE PAUL.

County or District	Male.	County or District	Male.
Arthabaska	2	Pontiac	5
Beauharnois	4	Quebec	42
Beauce	1	Richelieu	7
Bedford	19	Rimouski	2
Chicoutimi	1	St. Francis	13
Iberville	6	St. Hyacinthe	4
Joliette	1	Terrebonne	15
Kamouraska	1	Three Rivers	6
McLeod (Fort) Sask	1	Winnipeg	3
Montmagny	2		
Montreal	396	Total	510
Ottawa	19		

DORCHESTER.

Province.	County.	Male	Female	Total
Nova Scotia	Annapolis	6		6
	Antigonish	1		1
	Cumberland	10		10
	Colchester	9		9
	Cape Breton	37	7	44
	Digby	5	2	7
	Guysboro	1		1
	Hants	3		3
	Halifax	47	1	48
	Inverness	5		5
	Kings	6		6
	Lunenburg	5	2	7
	Pictou	5		5
	Shelburne	2		2
	Yarmouth	5		5
		147	12	159
New Brunswick	Carleton	1		1
	Charlotte	4		4
	Gloucester	8		8
	Kings	1		1
	Madawaska	6		6
	Northumberland	4		4
	Queens	3	1	4
	Restigouche	7		7
	St. John	22	3	25
	Sunbury	1		1
	Victoria	4		4
	Westmoreland	10	1	11
	York	3		3
		74	5	79
P. E. Island	Kings	1		1
	Queens	7		7
		8		8
Totals by provinces	Nova Scotia	147	12	159
	New Brunswick	74	5	79
	P. E. Island	8		8
	Total	229	17	246

MANITOBA.

District.	No.
Manitoba—	
Winnipeg	115
Brandon	7
Portage la Prairie	6
Morden	3
Minnedosa	1
Saskatchewan—	
Regina	3
Moosomin	1
Ontario—	
Rainy River	2
Kenora	1
Fort William	1
Alberta—	
Calgary	1
Macleod	2
North-West Territory—	
Norway House	1
Total	144

BRITISH COLUMBIA.

District.	No.	District.	No.
Ashcroft	3	Nelson	13
Clinton	6	New Westminster	14
Dawson	3	Quesnel	1
Fernie	20	Revelstoke	3
Fort Simpson	1	Rossland	3
Golden	4	Vancouver	84
Greenwood	2	Vernon	7
Kamloops	11	Victoria	20
Lytton	2		
Nanaimo	7	Total	204

ALBERTA.

District	Male.	Female.	Total.	District	Male.	Female.	Total.
Alberta—				Moose Jaw	4		4
Calgary	9		9	Prince Albert	3		3
Claresholm	1		1	Regina	13		13
Edmonton	12		12	Saskatoon	3		3
Fort Saskatchewan	2		2	Yorkton	3		3
Lethbridge	3		3				
Macleod	13	1	14	British Columbia—			
Medicine Hat	7		7	Revelstoke		1	1
Wetaskiwin	4		4	Vancouver		1	1
Saskatchewan—				Totals by provinces:			
Battleford	3	1	4	Alberta	51	1	52
Cannington	2		2	British Columbia		2	2
Maple Creek	2		2	Saskatchewan	36	1	37
Moosomin	3		3				

CRIMES COMMITTED.

KINGSTON.

Crimes.	Male.	Female	Total
Abduction	2		2
" girl under 16	1		1
" and carnal knowledge girl under 14	1		1
Arson	14		14
" assault and bringing stolen goods to Canada	1		1
" and forgery	1		1
" and seduction	1		1
" shopbreaking, stealing and escape	1		1
" and theft	1		1
Assault	4	1	5
" and causing great bodily harm.	4		4
" on peace officer	1		1
" and robbery	4		4
" and robbery and shooting with intent	3		3
" with intent to murder	1		1
" with intent to rob	1		1
" with intent to rob, shooting with intent and escape	1		1
" with intent to do great bodily harm	2		2
Attempt to break jail	2		2
" to carnally know female idiot .	1		1
" to destroy boilers	1		1
" to enter house with intent	1		1
" to have carnal knowledge of girl under 14	1		1
" to murder	7		7
" to murder and robbery with violence	1		1
" to murder and horse stealing.	1		1
" to murder and rape	1		1
" to commit rape	4		4
" to rob and shooting	1		1
" to set fire to lockup	1		1
Bigamy	6		6
" and theft	2		2
Breaking, entering and stealing	2		2
" jail	3		3
" Ry. car and stealing	2		2
Bringing stolen goods into Canada	1		1
Buggery	10		10
Burglary	39		39
" and carnal knowledge	1		1
" and escape	2		2
" and house breaking		1	1
" larceny and rape	2		2
" and receiving	2		2
" and theft	13		13
Carnally knowing girl of 4 years	1		1
" knowing girl of 5 years	1		1
" knowing girl under 14 yers	14		14
Causing explosion likely to endanger life	2		2
" grevious bodily harm	1		1
Conspiracy to defraud	1		1
Counterfeiting	2		2
Defiling child under 14 years	1		1
Escape from jail	2		2

Crimes.	Male.	Female.	Total.
Extortion	1		1
" of money by threats of violence	1		1
False pretences	3		3
Forgery	17		17
Forgery and uttering	7		7
Gross indecency	3		3
Having burg. tools and explosives, and forgery	1		1
" counterfeit money in possession	1		1
" explosives	1		1
" revolver, and assault with intent to robbery	1		1
Highway robbery	3		3
Horse stealing	17		17
" and breaking jail	1		1
" breaking and theft	1		1
" and theft from the person	1		1
House breaking	2		2
" and shop breaking	4		4
" and having explosives.	1		1
" shop breaking and theft	1		1
" theft and receiving	1		1
" and theft	15		15
" and theft and carrying explosives	1		1
" with intent	1		1
Incest	4		4
" and carnal knowledge of girl under 14	1		1
" housebreaking and theft	1		1
Indecent assault	6		6
" assault and burglary	1		1
" assault and carnal knowledge of girl 14 years	1		1
Involuntary homocide	1		1
Killing two horses	1		1
Making false document	1		1
" false entry and theft	1		1
" false statement	1		1
" and signing false statement	1		1
Manslaughter	19	1	20
Murder	19		19
Neglect of childbirth		1	1
Obstructing railway	2		2
Obtaining money by false pretenses	6		6
Perjury	6		6
Procuring girl, etc	1		1
Rape	7		7
" and breaking jail	1		1
" and attempt to murder	1		1
Receiving stolen goods	2		2
" stolen goods and escape	1		1
Resisting peace officer, escape and shooting	1		1
" officer	1		1
Robbery	12		12
" and indecent assault	1		1
" theft and assault	2		2
" with violence	7		7

KINGSTON (*Continued*).

Crime.	Male.	Female.	Total.
Seduction of girl under 16	1		1
Sheep stealing	1		1
Shooting and doing great bodily harm	1		1
" with intent	4		4
" with intent to maim	1		1
" with intent to murder	3	1	4
" and wounding with intent, etc.	1		1
Shopbreaking	6		6
" arson and forgery	1		1
" stealing and escape	1		1
" stealing and attempt to escape	1		1
" and theft	24		24
" theft and escape	1		1
Sodomy	2		2
Stealing	30	1	31
" cattle	1		1
" copper wire	2		2
" from dwelling house	1		1
" horse and buggy	1		1
" from the person	4		4
" from railway car	4		4
" post letters	9		9
Theft	43	3	46
" and assault	1		1
" of grain	3		3
" of cattle	2		2
Theft and forgery	1		1
" and having offensive weapon	1		1
" and incest	1		1
" of harness and grain	1		1
" and receiving	1	1	2
" from dwelling house	1		1
" from the person	4	2	6
" of scrap brass	1		1
Threatening to kill	1		1
Unlawful carnal knowledge of woman	1		1
Using forged document	1		1
Uttering forged document	2		2
Wilfully causing explosion	3		3
Wounding	2	1	3
" and robbery	1		1
" and theft	1		1
" with intent	5		5
" with intent rec'g stolen goods and seduction	1		1
" with intent to maim	1		1
" with intent to murder	1		1
" with intent and shopbreaking	1		1
" with knife	4		4
Assault and wounding	2		2
Total	557	13	570

ST. VINCENT DE PAUL.

Crime.	Male.
Aggravated assault	6
" robbery	17
Attempt to commit murder	7
" to steal from the person	4
" to indecent assault	1
" to utter forged notes	1
" to poison	1
" to steal by pinch lock	1
" to commit robbery	2
" to rape and rob	1
Assault and theft	2
Assault with intent to rob carrying an offensive weapon	1
Attempt to steal from the person	2
Arson and theft	1
Arson	7
Bigamy	1
Breaking a dwelling house with intent to steal	2
Breaking and entering a Bank	1
Burglary	8
Bringing stolen goods in to Canada	1
Forgery	11
" and theft	2
" and circulation of false notes	1
False pretence	7
Gross indecency	6
" indecency with and by other persons	1
Housebreaking	18
" and stealing therein	3
Horse stealing	9
Highway robbery	1
Incest and escape	1
" and rape	1
"	2
Indecent assault on female	4
Intent to carnally know girl under 14 years of age	3
Manslaughter	14
Murder	11
Obtaining goods under false pretence	2
Possession of false and counterfeited Bank notes	1
Perjury	2
Rape	2
Robbery	5
Receiving stolen goods	13
Shooting with intent	2
" with intent to grevious bodily harm	2
" with intent to disfigure	1
Shopbreaking	93
" and theft	8
Theft in a Church	1
" by a servant	8
" by a servant, conspiracy and damage	1
" with violence	2
" from dwelling house	1
" from the person	34
" of money with threats	1
" of letters containing money	1
" of post bags	1
" from railway cars	3
"	152
" and mischief	1
" and prison breach	1
Uttering counterfeit tokens of value	1
Unlawfully shooting with intent to disable	1
Wounding	5
" with intent to murder	2
" a child	1
Total	510

DORCHESTER.

Crime.	Male.	Crime.	Male.
Assaulting police officer	1	Malicious injury to apple trees	1
Abduction	1	Arson, theft and malicious injury to person	
Arson	3	Marrying woman knowing she had a husband living	1
Attempted rape	2	Obtaining money under false pretences	4
Act of gross indecency	3	Obtaining money under false pretences and theft	1
Assault causing bodily harm	14	Perjury	3
" and robbery	1	Putting obstruction on I.C.R.	1
Burglary and attempted rape	1	Robbery and wounding	1
Breaking, entering and stealing	34	Robbery	5
" entering and theft	1	Rape	4
" and attempt to break jail.		Receiving stolen money	1
" entering, stealing and receiving	1	" stolen goods	1
" jail	2	Ravishing and carnally knowing girl under 14	1
" and entering	1	Shooting to murder	1
" jail, entering and arson	1	Stealing and personal violence	3
Bigamy	4	" horse, wagon and harness	5
Breaking, entering and attempt to steal	1	" and breaking jail	1
Carnally knowing girl under 14	2	" and attempt to break jail	1
Escaping from custody	3	Theft	1
Fraudulent conversion of money and theft	1	" and escape from custody	92
Forgery	2	" express cheque and forgery	1
House breaking and theft	1	" P. O. bag containing money	2
" " and rape	1	Uttering forged bank notes	3
House breaking	3	Unlawfully wounding and shooting with intent	1
Having sexual intercourse with own daughter	1	" dealing with forged documents	2
Having stolen goods in possession	1	Uttering forged documents	1
Incest	1	Unlawfully wounding and stealing	3
Indecent assault	3	Uttering forged cheques	1
" assault on female infant	7	Unlawfully wounding by biting	2
" assault causing bodily harm	1		1
Killing a horse	1	Total	246
Manslaughter	1		
Murder	3		
	2		

MANITOBA.

Crime.	Male.	Crime.	Male.
Aggravated assault	1	Manslaughter	7
An indecent act	1	Murder	1
Arson	1	Obstructing peace officer	1
Arson, horse killing, and horse stealing	1	Obtaining money by false pretences	4
Assault with intent	1	Procuring and keeping a post-letter	1
Attempt to steal from the person	1	Rape	2
" to murder	6	Receiving stolen goods	2
" carnal knowledge of a girl under 14 years	1	Robbery	5
" rape	1	Robbery with violence	1
" to maim, disfigure or cause grievous bodily harm	1	Shopbreaking and theft	19
Bigamy	1	" and theft; attempt to break	2
Buggery	3	" and theft; attempt to escape	1
Burglary	1	Sodomy	2
Burglary, shopbreaking and theft	2	Stealing a post-packet and letter	1
Carnal knowledge of a girl under 14 years	4	" a post-letter from a post-bag	1
Conspiracy to defraud	1	Stealing team, robes and buggy	1
False pretences	1	" mare and buggy	1
Forgery	3	" a registered letter; forgery	1
Forgery and uttering	12	" a sum of money amounting to about $1,200	1
Forgery and uttering; attempt to escape	1	Theft	15
Fraud; forgery	1	" from the person	4
Having in his possession stolen money knowing same to have been stolen	1	" from a dwelling house	2
Highway robbery	2	" from a railway vehicle	1
Horse stealing	4	" from a railway vehicle	1
Housebreaking and theft	5	Unlawfully wounding with intent to maim	1
Incest	3	Wounding and inflicting grievous bodily harm	1
Indecent assault	3	Forgery and horse stealing	1
Intent to murder	1	Total	144

BRITISH COLUMBIA.

Crime.	Male.	Crime.	Male.
Administering poison with intent to kill	1	Murder	7
Aiding and abetting	1	Obtaining money under false pretences	2
Arson	1	Opening railway switch	1
Assault causing actual bodily harm	2	Perjury	1
" on police officer	1	Possession of stolen goods	2
" with intent	1	Rape	4
Attempted buggery	1	Receiving stolen money	1
Attempt to commit rape	1	Robbery	7
" to shoot with intent	1	Robbery with violence	3
" to steal	2	Robbing H.M.M.	2
" carnal knowledge girl under 14	1	Stealing	23
" to obtain money by fall pretences	1	" from the person	5
" to utter forged document	1	" with violence	3
Breaking, entering and stealing	29	Shooting with intent to murder	1
Buggery	2	" with intent	1
Burglary	7	Theft	23
Carnal knowledge of girl under 14	1	" from the person	1
Cattle stealing	1	" with violence	1
False pretences	1	Threat by letter to kill	1
Forgery	8	Unlawful carrying of offensive weapon	1
Forgery and uttering	1	" conspiracy	5
Fraud	1	" use of instruments	1
Gross indecency	5	" possession	2
Highway robbery under arms	1	Uttering	2
Horse stealing	3	Wounding	2
House breaking	2	Wounding with intent	10
Indecent assault	2		
Manslaughter	13	Total	204

ALBERTA.

Crime.	Male.	Female.	Total.	Crime.	Male.	Female.	Total.
Attempt to murder	1	2	3	Murder	3		3
" to escape	1		1	Misapplying money	1		1
" to procure miscarriage		1	1	Manslaughter	2		2
Arson	1		1	Obtaining by false pretences	2		2
Assault and doing grievous bodily harm	1		1	Poisoning horses	1		1
Burglary	5		5	Perjury	1		1
" and theft	10		10	Rape	5		5
" theft and attempt to escape	1		1	Robbery with violence and robbery from person		1	1
Buggery	1		1	Shooting with intent	2		2
" and rape	1		1	Stealing grain	2		2
Cattle stealing	3		3	Theft	13		13
Forgery	2		2	Using instrument and drug to procure miscarriage	1		1
Forgery uttering and jail breaking	1		1				
Stealing horses	23		23				
Horse stealing burglary and theft	1		1				
" obtaining goods by false pretence and perjury	1		1	Total	87	4	91
Indecent assault	1		1				

DURATION OF SENTENCE.

KINGSTON.

Sentence.	Male.	Female.	Total.	Sentence.	Male.	Female.	Total.
Two years	84	4	88				
Over two years and under three	28	1	29	Twelve years	6		6
Three years	118	3	121	Over twelve years and under thirteen	1		1
Over three years and under four	11	1	12	Fourteen years	10		10
Four years	43	2	45	Fourteen years and six months	1		1
Over four years and under five	1		1	Fifteen years	9		9
Five years	96	2	98	Sixteen years	1		1
Over five years and under six	3		3	Eighteen years	1		1
Six years	11		11	Twenty years	8		8
Seven years	49		49	Twenty-one years	2		2
Over seven years and under eight	1		1	Twenty-three years	1		1
Eight years	7		7	Twenty-five years	1		1
Nine years	1		1	Life	33		33
Ten years	28		28				
Eleven years	1		1	Total	557	13	570
Over eleven years and under twelve	1		1				

ST. VINCENT DE PAUL.

Sentence.	Male.	Sentence.	Male.
Two years	156	Over nine years and less than ten	3
Over two years and less than three	4	Ten years	22
Three years	121	Twelve years	2
Over three years and less than four	3	Thirteen years	1
Four years	56	Fourteen years	5
Over four years and less than five	2	Fifteen years	5
Five years	56	Over sixteen years and less than seventeen	1
Over five years and less than six	1	Nineteen years	1
Six years	11	Twenty years	4
Over six years and less than seven	5	Over twenty-one years and less than twenty-five	1
Seven years	28	Twenty-five years	1
Over seven years and less than eight	1	Life	12
Eight years	5		
Over eight years and less than nine	1	Total	510
Nine years	2		

DORCHESTER.

Sentence.	Male.	Female.	Total.	Sentence.	Male.	Female.	Total.
Two years	54	6	60	Over eight years under nine yrs	1		1
Over two yrs. under three yrs	4		4	Nine years	2		2
Three years	58	8	66	Over nine yrs. under ten yrs	1		1
Over three yrs. under four yrs	5		5	Ten years	10		10
Four years	24	1	25	Twelve years	1		1
Over four yrs. under five yrs	1		1	Fourteen years	3		3
Five years	32	2	34	Fifteen years	1		1
Over five yrs. under 6 yrs	1		1	Seventeen years	1		1
Six years	5		5	Twenty years	3		3
Over six yrs. under seven yrs	2		2	Life	5		5
Seven years	11		11				
Eight years	4		4	Total	229	17	246

MANITOBA.

Sentence.	Male.	Sentenced.	Male.
Two years	47	Six years	1
Two years and three months	1	Seven years	14
Two years and four months	2	Eight years	3
Two years and six months	2	Ten years	5
Two years and nine months	1	Fourteen years	3
Three years	19	Fifteen years	2
Three years and three months	1	Twenty years	4
Three years and six months	1	Twenty-four years	1
Four years	9	Life	1
Four years and three months	1		
Five years	25	Total	144
Five years and three months	1		

BRITISH COLUMBIA.

Sentence.	Male.	Sentenced.	Male.
Two years	54	Ten years	8
Over two years and under three years	16	Twelve years	2
Three years	31	Fourteen years	1
Over three years and under four years	3	Fifteen years	2
Four years	8	Seventeen years	1
Over four years and under five years	3	Twenty years	5
Five years	33	Twenty-one years	2
Six years	9	Twenty-five years	2
Over six years and under seven years	2	Life	11
Seven years	10		
Nine years	1	Total	204

ALBERTA.

Sentence.	Male.	Female.	Total.	Sentenced.	Male.	Female.	Total.
Two years	25		25	Over six yrs. and less than seven	2		2
Over two years and less than three	1	1	2	Seven years	2		2
Three years	18	2	20	Eight years	1		1
Over three yrs. and less than four	1		1	Ten years	2		2
Four years	9		9	Fourteen years	1		1
Over four yrs. and less than five	3		3	Fifteen years	1		1
Five years	14	1	15	Life	4		4
Six years	3		3	Total	87	4	91

OCCUPATIONS

KINGSTON.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Agents	2		2	Masons	6		6
Bakers	11		11	Mattress maker	1		1
Baker and jockey	1		1	Millwright	1		1
Bank clerks	3		3	Miners	4		4
Bank managers	2		2	Minister	1		1
Barbers	7		7	Motorman	1		1
Barkeepers	1		1	Moulders	8		8
Blacksmiths	4		4	Musician (Bandsman)	1		1
Bookkeepers	4		4	No occupation	4	1	5
Brakesman	1		1	Painters	15		15
Bridge builder	1		1	Paper hangers	2		2
Brick maker	1		1	Peddler	1		1
Brass finishers	1		1	Photographer	1		1
Bricklayers	2		2	Picture framer	1		1
Bushman	1		1	Plasterer	1		1
Butchers	10		10	Plumbers	3		3
Cab drivers	1		1	Policeman	1		1
Cabinet makers	1		1	Porter	1		1
Candy makers	2		2	Postal clerk	1		1
Carpenters	15		15	Printers	4		4
Carriage maker	1		1	Quarryman	1		1
Checker	1		1	Railroaders	3		3
Cigar makers	3		3	Railway car inspectors	2		2
Clerks	7		7	Reporters	1		1
Coachmen	2		2	Riveter	1		1
Cooks	15		15	Rope maker	1		1
Cooper	1		1	Sailors	5		5
Coremaker	1		1	Salesmen	1		1
Detective	1		1	Sawyer	1		1
Dressmakers		2	2	Servants		8	8
Driller	1		1	Shirt maker	1		1
Druggist	1		1	Shoemakers	8		8
Electricians	4		4	Silver plater	1		1
Engineers	3		3	Steam fitters	5		5
Engineer's apprentice	1		1	Stenographers	3		3
Engraver	1		1	Stock broker	1		1
Factory hand		1	1	Stone cutters	9		9
Farmers	51		51	Stoker	1		1
Farm hands	3		3	Storekeeper	1		1
Firemen	20		20	Student	1		1
Fur tanner	1		1	Surveyor's assistant	1		1
Horsemen	4		4	Switchman	1		1
Harness makers	2		2	Tailors	7		7
Hotel clerk	1		1	Tailors' apprentices	2		2
Hotel waiter	1		1	Teamsters	12		12
Horse shoer	1		1	Telegraph operators	3		3
Hotel keepers	2		2	Tinsmiths	5		5
Housekeeper		1	1	Trunk maker	1		1
Iron worker	1		1	Telephone inspector	1		1
Laborers	182		182	Travelers	2		2
Letter carriers	3		3	Waiters	3		3
Linemen	2		2	Watchmakers	2		2
Lithographer	1		1	Weavers	2		2
Liveryman	1		1	Window dresser	1		1
Lumbermen	2		2	Woodturner	1		1
Machinists	11		11	Whip maker	1		1
Machinists' apprentices	2		2				
Manager Loan Company	1		1	Total	557	13	570
Marine engineer and electrician	1		1				

ST. VINCENT DE PAUL.

Occupation.	No.	Occupation.	No.
Accountants	7	Millman	1
Artist	1	Masons	5
Bookkeepers	6	Newspaper agent	1
Blacksmiths	4	No trade	2
Bookbinders	3	Notary	1
Butchers	8	Peddlar	1
Barbers	11	Piano maker	1
Bartenders	4	Priest	1
Brakemen	2	Porter	1
Brass finisher	1	Painters	10
Bakers	2	Printers	11
Boilermaker	1	Plumbers	8
Clerks	17	Plasterer	1
Carters	17	Quarryman	1
Carpenters	14	Road master	1
Cooks	12	R. R. employee	1
Cigarmakers	5	Sailors	5
Constables	2	Station agent	1
Chief of Police	1	Storeman	1
Carriage makers	2	Salesmen	2
Doctors	2	Students	2
Driver	1	Shoemakers	16
Electricians	8	Stonecutters	11
Engineer	1	Switchmen	2
Farmers	25	Steamfitters and machinists	23
Furrier	1	Travellers	2
Firemen	4	Typographers	2
Harnessmaker	1	Telegrapher operator	1
Horseman	1	Turner	1
Hotelkeeper	2	Trunk maker	1
Insurance agent	1	Tinsmiths	14
Lumbermen	3	Tailors	20
Leather cutters	7	Traders	2
Lythographer	1	Waiters	3
Labourers	170	Watchmakers	2
Mail carter	1		
Merchants	2	Total	510
Moulder	1		

DORCHESTER.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Agents	4		4	Miners	10		10
Bookkeepers	3		3	Merchant	1		1
Barbers	2		2	Mine hands	3		3
Blacksmiths	6		6	Masons	1		1
Bricklayers	1		1	Moulder	1		1
Bridge builder	1		1	Newspaper man	1		1
Carpenters	8		8	Painters	7		7
Clerks	1		1	Peddlars	1		1
Cooks	5		5	Photographer	1		1
Candy maker	1		1	Printer	1		1
Cloth finisher	1		1	Pit driver	1		1
Blast furnace helper	1		1	Tailors	9		9
Baker	1		1	Shoe makers	4		4
Druggist	1		1	Stone cutters	4		4
Draughtsman	1		1	Shoe hand	1		1
Domestics		10	10	Tailor and painter	1		1
Electricians	2		2	School teacher	1		1
Engineers	2		2	Tailor	1		1
Fishermen	2		2	Teamsters	7		7
Firemen	8		8	Trader	1		1
Farmers	16		16	Well borer	1		1
House keepers		7	7	Watchmakers	2		2
Hostlers	4		4	Waiter	1		1
Lumbermen	1		1				
Labourers	94		94	Total	229	17	246
Linemen	2		2				

MANITOBA.

Occupation.	Male.	Occupation.	Male.
Attorney	1	Painter	1
Barbers	3	Photographer	1
Boiler maker	1	Plumber	1
Bricklayers	2	Sailor	1
Butcher	1	Shoemakers	4
Carpenters	11	Steam fitters	3
Clerks	5	Soldier	1
Cooks	3	Stenographer	1
Dentist	1	Stone cutter	1
Farmer	1	Stone mason	1
Fur cutter	1	Tailor	1
Labourers	89	Tinsmiths	2
Machinists	4	Waiter	1
Minister	1		
Moulder	1	Total	144

BRITISH COLUMBIA.

Occupation.	No.	Occupation.	No.
Architect	1	Lumber jacks	1
Barbers	4	Machinists	5
Bartenders	1	Master mariners	1
Blacksmiths	1	Miners	12
Boilermakers	1	Moulders	2
Bookkeepers	4	Painters	9
Brewers	1	Plasterer	1
Butchers	3	Physician	1
Cabinet makers	2	Plumbers	1
Carpenters	5	Printers	2
Collectors	1	Sailors	4
Contractors	1	Shingleweavers	1
Cooks	15	Shoemakers	3
Cowboys	2	Soldiers	1
Clerks	7	Stationary engineer	1
Electricians	2	Stone cutters	2
Engineers	2	Stonemasons	1
Farmers	15	Switchmen	1
Firemen	4	Tailors	7
Fishermen	2	Teamsters	5
Florists	1	Tinsmiths	1
Freighters	1	Traders	1
Horsemen	1	Veterinary surgeon	1
Journalist	1	Waiters	3
Labourers	56	Weavers	1
Linemen	1		
Loggers	1	Total	204

ALBERTA.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Architect	1		1	No occupation		2	2
Baker	1		1	Painter	3		3
Blacksmith	2		2	Printer	2		2
Barber	2		2	Physician	1		1
Brakesman	1		1	Rancher	6		6
Butchers	4		4	Sailor	1		1
Bookkeeper	2		2	Shoemaker	2		2
Carpenter	3		3	Sheet metal worker	1		1
Cook	5		5	Salesman	1		1
Cow boy	8		8	Telegraph operator	1		1
Dressmaker		1	1	Teamster	3		3
Engineer	2		2	Tailor	1		1
Fur trader	1		1	Waitress		1	1
Hotel man	1		1	Farmer	13		13
Labourer	12		12	Farm labourer	2		2
Mason	1		1				
Mail clerk	1		1	Total	87	4	91
Miner	3		3				

NATIONALITY.

KINGSTON.

———	Male.	Female.	Total.	———	Male	Female.	Total.
Canada	342	8	350	Switzerland	1	.....	1
England	76	2	78	India	3	.....	3
United States	45	.....	45	West Indies	1	.....	1
Russia	13	.....	13	Scotland	6	.....	6
Sweden	1	.....	1	Austria-Hungary	6	2	8
Ireland	22	1	23	Turkey	2	.....	2
France	2	.....	2	Australia	3	.....	3
Italy	21	.....	21	Spain	1	.....	1
Germany	6	.....	6				
Denmark	6	.....	6	Total	557	13	570

ST. VINCENT DE PAUL.

———	Male.	———	Male.
American	34	Italian	19
Belgian	3	New Zealand	1
Canadian	394	Russian	7
English	19	Scottish	5
French	13	Swedish	1
German	5		
Greek	1	Total	510
Irish	8		

DORCHESTER.

———	Male.	Female.	Total.	———	Male.	Female.	Total.
Canada	160	14	174	St. Pierre	1	.....	1
Denmark	2	.....	2	Turkey	2	.....	2
England	20	.....	20	Scotland	1	1	2
France	1	.....	1	Sweden	1	.....	1
Ireland	3	1	4	United States	15	1	16
Italy	12	.....	12	West Indies	3	.....	3
Holland	1	.....	1				
Newfoundland	7	.....	7	Total	229	17	246

MANITOBA.

	Male		Male.
American	14	Icelander	1
Canadian	42	Irish	5
Chinese	1	Italian	3
Danish	4	Russian	4
Holland	1	Roumanian	1
English	38	Scottish	7
German	7	Welsh	2
Greek	2		
Austrian	12	Total	144

BRITISH COLUMBIA.

	Male.		Male.
Australia	1	United States	43
Austria	1	Holland	1
West Indies	1	Ireland	10
Canada	61	Italy	14
China	15	Japan	5
Denmark	1	New Zealand	1
England	29	Scotland	12
Russia	2		
France	1	Total	204
Germany	6		

ALBERTA.

	Male.	Female.	Total.		Male.	Female.	Total.
Canada	25	.....	25	Austria	2	.....	2
United States	26	3	29	France	1	.....	1
England	15	.....	15	Mexico	1	.....	1
Ireland	4	.....	4	Japan	1	.....	1
Scotland	2	.....	2	Iceland	.....	1	1
Germany	3	.....	3				
Italy	2	.....	2	Total	87	4	91
Russia	5	.....	5				

AGE.

KINGSTON.

Age.	Male.	Female.	Total.	Age.	Male.	Female.	Total.
Under 20 years	37	2	39	" 60 " " " 70	18	.....	18
Over 20 years and under 30	252	4	256	" 70 years	1	.....	1
" 30 " " 40	150	4	154				
" 40 " " 50	69	3	72	Total	557	13	570
" 50 " " 60	30	.....	30				

ST. VINCENT DE PAUL.

Age.	Male.	Age.	Male.
Under 20 years	86	" 60 " " 70	9
Over 20 years and less than 30	220	" 70 " " 80	1
" 30 " " 40	111		
" 40 " " 50	56	Total	510
" 50 " " 60	27		

DORCHESTER.

Age.	Male.	Female.	Total.	Age.	Male.	Female.	Total.
Under 20	23	7	30	60 to 70	3		3
20 to 30	105	4	109	70 to 80	2		2
30 to 40	48	4	52				
40 to 50	30	1	31	Total	229	17	246
50 to 60	18	1	19				

MANITOBA.

Age.	Male.	Age.	Male.
Under 20 years	12	50 " " 60 "	9
20 years and under 30 years	60	60 " " 70 "	1
30 " " 40 "	48		
40 " " 50 "	14	Total	144

BRITISH COLUMBIA.

Age.	Male.	Age.	Male.
Under twenty years	17	" 50 " " 60 "	13
Over 20 years and under 30 years	83	" 60 " " 70 "	2
" 30 " " 40 "	64		
" 40 " " 50 "	25	Total	204

ALBERTA.

Age.	Male.	Female.	Total.	Age.	Male.	Female.	Total.
Under 20 years	7		7	" 60 " " 70	1		1
Over 20 years and under 30	46		46	" 70 " " 80	1		1
" 30 " " 40	14	4	18				
" 40 " " 50	12		12	Total	87	4	91
" 50 " " 60	6		6				

EDUCATION.

KINGSTON.

	Male.	Female.	Total.
Can read and write	465	9	474
Can read, only	11		11
Cannot read or write	81	4	85
Total	557	13	570

ST. VINCENT DE PAUL.

	No.
Cannot read nor write	88
Can read only	27
Can read and write	395
Total	510

DORCHESTER.

	Male.	Female.	Total.
Can read and write	165	10	175
Can read only	23	1	24
Cannot read nor write	41	6	47
Total	229	17	246

MANITOBA.

	No.
Read and write English	95
" " and French	9
" " and German	5
" " and Greek	2
" " and Swedish	2
" " and Hungarian	1
" " and Polish	2
" " and Danish	5
" " and Icelandic	1
" " and Russian	2
" " and Italian	3
" Greek only	1
" Italian only	1
" German only	2
" Chinese only	1
" French only	2
" Galician only	4
Read only in English	1
Cannot read or write	5
Total	144

BRITISH COLUMBIA.

	No.
Can read and write	177
Can read only	3
Cannot read or write	24
Total	204

ALBERTA.

	Male.	Female.	Total.
Can read and write	72	3	75
Cannot read or write	15	1	16
Total	87	4	91

MORAL HABITS.

KINGSTON.

	Male.	Female.	Total.
Total abstainers	136	.....	136
Temperate	236	8	244
Intemperate	185	5	190
Total	557	13	570

ST. VINCENT DE PAUL

	Male.	Total.
Abstainers	2	2
Intemperate	305	305
Temperate	203	203
Total	510	510

DORCHESTER.

	Male.	Female.	Total.
Abstainers	78	6	84
Temperate	100	1	101
Intemperate	51	10	69
Total	229	17	241

MANITOBA.

	No.
Abstainers	21
Temperate	82
Intemperate	41
Total	144

BRITISH COLUMBIA.

	No.
Total abstainers	33
Temperate	88
Intemperate	83
Total	204

ALBERTA.

	Male.	Female.	Total.
Total abstainers	24	2	26
Temperate	52	2	54
Intemperate	11	.....	11
Total	87	4	91

CIVIL CONDITION.

KINGSTON.

	Male.	Female.	Total.
Married	175	8	183
Single	376	5	381
Widowed	6	.....	6
Total	557	13	570

ST. VINCENT DE PAUL.

	Male.	Total.
Married	126	
Single	363	
Widowed	21	
Total	510	510

DORCHESTER.

	Male.	Female.	Total.
Married	63	8	71
Single	153	7	160
Widowed	13	2	15
Total	229	17	246

MANITOBA.

	No
Married	43
Single	98
Widowers	3
Total	144

BRITISH COLUMBIA.

	No.
Single	142
Married	58
Widowed	4
Total	204

ALBERTA.

	Male	Female.	Total.
Married	27	4	31
Single	52	.....	52
Widowed	8	.....	8
Total	87	4	91

RACIAL.

KINGSTON

	Male.	Female.	Total.
White	535	12	541
Indian	7	.....	7
Coloured	15	1	16
Total	557	13	570

ST. VINCENT DE PAUL.

	Male.	Total.
White	508	
Coloured	2	
Total	510	510

DORCHESTER.

	Male.	Female.	Total.
White	200	9	209
Coloured	28	7	35
Indian	1	1	2
Total	229	17	246

MANITOBA.

	No.
White	136
Coloured	1
Indian	1
Half-breed	5
Mongolian	1
Total	144

BRITISH COLUMBIA.

	No.
White	158
Indian	12
Indian half-breed	9
Coloured	5
Mongolian	20
Total	204

ALBERTA.

	Male.	Female.	Total.
White	73	4	77
Indian	2		2
Indian half-breed	8		8
Coloured	3		3
Mongolian	1		1
Total	87	4	91

PARDONS.

KINGSTON.

Name.	Crime.	Where sentenced.
T. Anderson	Theft	North Bay.
James Kew	Murder	Toronto.

ST. VINCENT DE PAUL

Name.	Crime.	Where sentenced.
O'Leary, George	Rape	Montreal.
Tétreault, Joseph	Arson	Bedford.

DORCHESTER.

Name.	Crime.	When released.	Where committed.
Dominic Rossi	Wounding with intent	August 31, 1908	Sydney, C.B.
Edwin Seale	Having illicit connection with girl of previous chaste character	November 14, 1908	Halifax, N.S.

MANITOBA.

Name.	Crime.	Where sentenced.
Saunders, Jas	Horse stealing	Winnipeg, Man.

BRITISH COLUMBIA.

Name.	Crime.	Where sentenced.
Zezman, Frank	Assault causing actual bodily harm	Nanaimo.
Lindquist, Frank A	Theft	Ashcroft.
Lindquist, John F	"	Ashcroft.
Allen, Samson	Wounding with intent	Vancouver.

ALBERTA.

Name.	Crime.	Where sentenced.
William Jardine	Gross indecency	Red Deer.
Benjamin Cracraft	Theft	Prince Albert.
Patrick M. Kelly	"	Prince Albert.
F. Blochlinger	Obtaining money by false pretence	Edmonton.
Walter Sheppard	Obtaining money by false pretence	Macleod.
Charles Chamberlain	Burglary and theft	Regina.

PAROLES.

KINGSTON.

Name.	Crime.	Where sentenced.
John Hamilton	Theft and burglary	Cayuga.
Wm. McDonald	Theft	London.
Edward Hoffmann	Carnally knowing girl under 14 years	Berlin.
Charles Copeland	Rape	Bracebridge.
Thomas Davis	House-breaking and theft	Kenora.
Richard Evans	Horse stealing	London.
Waldon DeLeary	Burglary and theft	St. Thomas.
John Truckle	Rape	Brantford.
C. J. Chambers	Horse stealing	Cayuga.
James Harper	Aggravated assault	Brockville.
Frank Jenack	Horse stealing and theft	Cornwall.
Matthew Granger	Uttering forged note	Stratford.
John Wiseman	Stealing horse and cow	Port Arthur.
John Kenward	Forgery	Woodstock.
Febregio Gentilo	Wounding	Parry Sound.
John Finnessy	Attempt to rape	Ottawa.
Milton Morrison	Forgery and uttering	Sudbury.
Frank Mangino	Wounding	Parry Sound.
Harry Simpson	Forgery	Port Arthur.
Wm. C. McComb	Assault with intent to rape	Pembroke.
Wilbert Boyce	Rape	St. Catherines.
Nathaniel Hallman	Theft	Toronto.
F. J. Griffin	Forgery	Port Arthur.
D. McDonald	Breakng and stealing	Chatham.
Joseph Goldberg	Theft	Hamilton.
Ernest Langley	"	London.
Macklan Graham	"	Hamilton.
Edwin Bamford	"	Brockville.
John McIntosh	False pretences	Hamilton.
Isaac Lottridge	Horse stealing	Ottawa.
Albert Nowell	House-breaking and stealing	Woodstock.
Robert Logie	Having counterfeit money	Lindsay
Jerry Cobb	Burglary	Sault Ste. Marie.
James Curry	Incest	Parry Sound.
Thomas E. Flexen	Shooting with intent	London.
Josie Carr	Manslaughter	Toronto.
Leslie Harris	Bigamy	Stratford.
James Milne	Arson and forgery	Sarnia.
James Jordan	Robbery with violence	St. Thomas.
C. Seymour	Burglary	Toronto
D. Thomas Whitesides	Rape	Toronto
Eugenio Marano	Aggravated assault	Parry Sound
Frank Duffy	Rape	Toronto.
Stephen Walsh	Robbery with violence	St. Thomas.
A. Britton	Shop-breaking and theft	Sudbury
A. Daveling	Theft from railway car and attempt to break jail	Guelph.
G. McAlynn	Theft from railway car and attempt to break jail	Guelph.
F. Hetherington	Theft from railway car and attempt to break jail	Guelph.
N. Cayer	Attempted buggery	Massey (Algoma.)
D. Frederick	Stealing	Picton.
W. J. Fleming	"	Pembroke.
E. S. Banwell	Theft and receiving	Toronto.
Louis Glenn	Arson	Gore Bay.
C. Chandler	Theft of post letter	Toronto.
John Walsh	Shooting with intent to disable	Sandwich.
Alex. Sharpe	Manslaughter	Peterboro.
Wm. Houghton	Highway robbery	Berlin.
Henry Tompkins	Theft	Toronto.
John F. Duncan	Fraud, forgery and theft	Windsor.
J. C. McLeod	Blackmail	Sault Ste. Marie.

ST. VINCENT DE PAUL.

Name.	Crime.	Where sentenced
Atkins, John	Theft	Bedford.
Amyot, Tancrède	Shop-breaking and etc	St. Hyacinthe.
Bowen, Joseph	Theft	Quebec.
Beaudoin, Onésime	Shop-breaking and theft	St. Francis.
Beaudoin, Henri	Horse stealing	St. Francis.
Beauchemin, Henri	Theft	St. Hyacinthe.
Bisson, François	Shop-breaking	Montreal.
Bélanger, Desiré	Theft	St. Hyacinthe.
Bernard, Lucien	Manslaughter	Montreal.
Clarke, Henry	Aggravated robbery	Montreal.
Conley, John	Assault and theft	Winnipeg.
Carroll, John	Theft	St. Francis.
Cather, James Short	" by a servant	Montreal.
Chaput, Gédéon	Rape	Pontiac.
Corey, Zeno	Theft	Bedford.
Dubé, Alfred	Aggravated assault	Montreal.
Doyon, Ivanhoe	Aggravated robbery and etc	Montreal.
Dusseault, Laurent	Uttering forged notes	St. Francis.
Gouzey, Fred	House-breaking and theft	Bedford.
Guillaume, William	Theft	Montreal.
Henry, Patrick	" from the person and assault	Montreal.
Hobbs, David	Forgery	Montreal.
Joncas, Emile	Attempted indecency	Kamouraska.
Kelley, Edward	Unlawfully shooting with intent	Montreal.
Lauzon, Arthur	Theft	Montreal.
Lemieux, Ubald	Breaking a dwelling house	Montreal.
Lanthier, Wilbrod	Theft	Montreal.
Lapierre, Frederick	" of post letters	Three Rivers
Martin, Joseph Arthur	Malversation and theft	Beauharnois.
McConnell, Arnold	Breaking a dwelling house	Montreal.
Ouellette, Alfred	Theft	Quebec.
Paré, Joseph	Attempt at arson	Bedford.
Pelland, Joseph	Shop-breaking	Montreal.
Paquette, Antonio H	Forgery	St. Francis.
Piette, Joseph	Theft	St. Hyacinthe.
Robert, Joseph	Attempt to rape	Ottawa.
Robidoux, Thomas	Forgery, etc	Beauharnois.
Ranger, Joseph	Burglary	Montreal.
Scroggins, William	Theft by a servant	Montreal.
Sarazin, Antoine	Wounding	Montreal.
Thorton, Frank J	Arson	St. Francis.
Vandal, Ovila	Shop-breaking	Montreal.

DORCHESTER.

Name.	Crime.	When sentenced.	Where sentenced.
John Carter	Breaking, entering and stealing	August 14, 1907	Pictou, N.S.
Joseph McEachern	Stealing	January 31, 1907	Cape Breton.
John Senea	Theft	November 9, 1906	Cape Breton.
Harry Jenkins	Uttering forged cheque	June 10, 1907	Halifax, N.S.
Wm. H. Sheppard	Breaking, entering and stealing	March 29, 1906	Pictou, N.S.
James Smith alias Woodworth	" "	April 9, 1903	Annapolis, N.S.
Michael Nicholson	Theft	November 5, 1906	Cape Breton.
James Kelly	Assault occasioning actual bodily harm	August 21, 1907	Cape Breton.
Neil Sutherland	Forgery	November 8, 1905	Cape Breton.
Neil H. McLean	"	" 8, 1905	Cape Breton.
James Rennie	Asault with intent to do grevious bodily harm	February 23, 1906	Cape Breton.
Wiliam Wood	Breaking, entering, stealing and assault	May 3, 1904	Pictou.
Joseph Jordan	Breaking, entering and stealing	" 18, 1907	Pictou.
Smith Fielding	Assault and robbery	August 3, 1905	Truro, N.S.
Damien Cormier	Arson	September 3, 1901	Kent Co., N.B.
Geo. E. Morton	Breaking, entering and stealing	November 30, 1905	Yarmouth, N.S.
Edgar Troop	" "	December 24, 1906	West Co., N.B.
Michael Roach	Stealing watch and chain	November 14, 1907	Halifax, N.S.
Martin Tracey	Receiving stolen goods	June 26, 1906	Cape Breton.
Patrick Dawson	Bigamy	November 8, 1905	Cape Breton.
Olaf Larsen	Stealing and receiving stolen goods	March 9, 1906	West. Co., N.B.
Geo. G. Munro	Theft	January 8, 1906	St. John, N.B.
Freile Baunell	Refusing to support child	November 23, 1907	Kings, N.B.
David Boutelier	Theft	" 7, 1907	Sydney.
Joseph Naves	Breaking, entering and stealing	January 28, 1908	Sydney.
Wilber Jones	Burglary, breaking, entering and stealing	March 29, 1906	Pictou, N.S.
James Noland	Shooting with intent to disable	October 5, 1907	Digby, N. S.
Lindsay Dagley	Inflicting grave bodily harm	May 28, 1907	Lunenburg, N.S.
Thomas J. Connell	Theft	March 23, 1908	St. John. N.B.
Alexander Spencer	Theft and escape from jail	October 10, 1906	Inverness, N.S.
Thomas Hackett	Theft	November 12, 1907	Cape Breton.
Fred Culliver	Breaking, entering and theft	December 24, 1906	West Co., N.S.
Alex. DeCaste	Breaking and entering	October 1, 1907	Guysboro, N.S.
Fred'k McLean	Stealing	November 12, 1907	Restigouche, N.B.
Fred'k Abrams	Assault with attempt to commit rape	June 18, 1903	Annapolis, N.S.
Adelbert Rogers	Breaking, entering and stealing	August 24, 1907	Yarmouth, N.S.
Edward Pelkie	Malicious mischief	July 5, 1907	Victoria, N.B.
Martin Lightfoot	Arson	June 1, 1905	Kings, N.S.
George Asprey	Breaking, entering and stealing	February 3, 1908	Restigouche, N.B.
Thomas Grice	Theft	December 17, 1907	Cape Breton.
William Ford	Perjury	June 29, 1907	Cape Breton.
Geo. Puzarsky	Theft	August 6, 1907	Cape Breton.
Frank Newman	Inflicting grevious bodily harm	Sept'mb'r 28, 1908	Halifax, N.S.
Guiseppi Petro Pavole	Obstructing construction of railwy	August 29, 1908	Restigouche, N.B.
Saven Crisup	" "	" 29, 1908	Restigouche, N.B.
Guiseppi Cochino	" "	" 29, 1908	Restigouche, N.B.
Vincerino Crisup	" "	" 29, 1908	Restigouche, N.B.
Merton G. Lowe	Asault occasioning actual bodily harm	September 26, 1907	Cumberland, N.S.
Chas. Phalen	Theft	March 24, 1908	Cape Breton.
William Morris	Escape from custody	May 22, 1908	St. John, N.B.
Stephen Myatt	Breaking, entering and stealing	October 14, 1907	Halifax.
Chas. Harcourt	Inflicting grevious bodily harm	July 22, 1907	Halifax.
Robert Moore	Assault occasioning bodily harm	September 10, 1907	Col. Co., N.S.
Susan Cullin	Theft	January 8, 1907	Carleton Co., N.B.

MANITOBA.

Name.	Crime.	Where sentenced.
Candline, W. M.	Stealing post-letters	Winnipeg. Man.
Clisby, E.	Forgery	Morden, Man.
Czulkies, H.	Horse stealing	Wetaskiwin, Alta.
Fitzgerald, R. J.	Forgery and attempting to utter; theft.	Winnipeg, Man.
Ford, L. M.	Bigamy	Brandon, Man.
Holmes, R.	Theft	Winnipeg, Man.
Kennedy, J. R.	Stealing a saddle and bridle	Calgary, Alta.
Krasnapuro, N.	Theft	Winnipeg, Man.
Lawrence, J.	Receiving stolen goods	Winnipeg, Man.
Lazarenko, M.	Wounding with intent	Winnipeg, Man.
Lemac, T.	Murder	Regina, Sask.
Massey, J. H.	Forgery and uttering	Winnipeg, Man.
Moore, F. H.	Theft	Winnipeg, Man.
Munford, J. C.	Arson	Winnipeg, Man.
McLean, C.	Shooting and maiming	Winnipeg, Man.
McLelland, R.	Stealing money	Regina, Sask.
Ross, A.	Theft; receiving stolen goods	Winnipeg, Man.
Steadman, J.	Forgery	Winnipeg, Man.
Sutherland, L.	Horse stealing	Red Deer, Alta.
Varnoe, H.	Burglary	Macleod, Alta.
"White Cap," P.	Stealing	Macleod, Alta.

BRITISH COLUMBIA.

Name.	Crime.	Where sentenced.
Lorenzo, Wm.	Robbery with violence	Victoria.
Atkins, Tommy	Obtaining money under false pretences.	Vancouver.
Demars, Joe	Wounding with intent	Vancouver.
Tommy, Alex	Horse stealing	Kamloops.
Jameson, James	Attempt to commit rape	Vernon.
Moore, Chas.	Manslaughter	Clinton.
Barber, James	Stealing	Kamloops.
Ryrwick, Bill	"	Cranbrook.
Burrell, Wm.	Obtaining money under false pretences.	Nelson.
Mahoney, Dennis	Stealing	Cranbrook.
Sterling, Chas.	Theft	Vancouver.
Hassard, Harry	Having stolen property	Vancouver.
Wallace, A. B.	Indecent assault	Vernon.
Olle, Claude	Stealing	Vancouver.
Wetistala	Perjury	Vancouver.
Healy, Fred	Stealing	Vancouver.
Killaby, Robt. F.	Arson	New Westminster.
Bruce, Laughlin	Assault	Nelson.
Westberg, Fred	Theft	Vancouver.
Kennedy, Pat	Stealing	Revelstoke.
Flood, F. G.	Wounding with intent	Vernon.
Miller, Clarence	Forgery and uttering	Vancouver.
Charlie, alias Alex	Murder	Vancouver.
Barton, James	Forgery	Vancouver.
Eneas,	Rape	Vernon.
Page, Wm.	Burglary	New Westminster.
Cook, W. J.	Stealing	Vancouver.
McArthur, Thos.	Breaking and entering	Vancouver.

ALBERTA.

Name.	Crime.	Where sentenced.
George Ryckman	Horse stealing	Macleod.
Charles Davis	"	Macleod.
Joseph E. Archambault	Bigamy	Moosomin.
Henry Bishop	Forgery	Medicine Hat.
Percy C. Dyson	Attempt at arson	Prince Albert.
Charles Kurtz	Obtaining by false pretence	Regina.
Frank Meisano	Assault and doing bodily harm	Calgary.
William Smith	Theft, forgery and uttering	Maple Creek.
Alfred Thompson	Obtaining horse by false pretence	Moosomin.
Willie, Crowshoe	Horse stealing	Macleod.
Charles R. Hostetter	Shooting with intent	Carnduff.
Lawrence Sarace	Assault and doing bodily harm	Calgary.
John Smigorowski	Uttering	Edmonton.
Gabriel Bulyea alias Louis Sinclair	Horse stealing	Regina.
Phillip Hoof	Horse stealing	Macleod.
Eugene Smolk	Theft and receiving	Calgary.
John Knowles	Cattle stealing	Macleod.
J. M. Wallar	Theft	Macleod.
Thomas Jordan	Assault and robbery	Macleod.
Albert Malcolm	Obstructing railway	Red Deer.
T. Fletcher Hutchinson	Theft	Calgary.
A. Fred. Blunden	Cattle stealing	Macleod.
Yellow Creek	Horse stealing	Macleod.
Richard Norris Train	Cattle stealing	Macleod.
William Whiteside	Horse stealing	Yorkton.
Francis Vilbrun	Horse stealing	Maple Creek.
William H. Kempe	Theft	Calgary.
Robert H. Cuthbertson	Forgery and jail breaking	Calgary.
Charles J. Clark	Forgery	Wetaskiwin.
Russel Lawrey	Horse stealing	Calgary.
John McKay alias Wm. Brennan	Theft	Moose Jaw.
Arthur McDonald	Burglary and theft	Calgary.
Cecil Stacey	Theft	Calgary.
Charles F. Ross	Burglary and theft	Lethbridge.
Frederick Slinn	Indecent assault	Prince Albert.
John E. Bennion	Cattle stealing	Calgary.
John Boychuk	Horse stealing	Yorkton.
Ray J. Ewing	Uttering	Calgary.
Rudolf R. Nicholson	Forgery and uttering	Lethbridge.
Nellie Franklin	Theft	Winnipeg.

DEATHS.

KINGSTON.

Name.	Crime.	Where sentenced.
David Smith	Theft from dwelling house	Stratford.
Frank Hogan	Burglary	Parry Sound.
John P. Anderson	Bigamy	Renfrew.
Jenny Barry	Theft from person	Montreal.
"Bulwer" (Indian)	Manslaughter	Whitewood (Assa.)
John Hickey	Arson	Brockville.
James McLeod	Shop-breaking and stealing	Cornwall.
John Walsh	Causing explosion likely to endanger life	Welland.

ST, VINCENT DE PAUL.

Name.	Crime.	Where sentenced.
Ashten, Arthur	Burglary and theft	Montreal.
Flynn, John	Theft	Montreal.
Gagné, Philias	Arson	Joliette.
Giacconi, Antonio	Murder	Montreal.
Greenhill, George A	Attempt to murder	St. Francis.
Lavoie, John	Theft	Montreal.
Miron, Adelard	Aggravated robbery	Montreal.

DORCHESTER.

Name.	Crime.	Where sentenced.
Mabel Borden	Perjury	Sydney, N.S.

MANITOBA.

None.

BRITISH COLUMBIA.

Name.	Crime.	Where sentenced.
Newman, Paul	Breaking, entering and stealing	Nanaimo.
Weston, John B	Horse stealing	Vernon.
Carlson, Frank	Stealing	Victoria.
Benedetti, Roberto	Unlawful wounding	Fernie.

ALBERTA.

Name.	Crime.	Where sentenced.
Neville F. Harbottel	Theft	Edmonton.

PUNISHMENTS.

KINGSTON.

	Number of of times administered.	Number of convicts punished.
Remission forfeited	1,073	296
Punishment cell on bread and water	599	209
Deprived of cell light	80	54
Reduced in grade	53	52
Deprived of library privilege	60	55
Reduced rations	18	15
Dungeon on bread and water	13	11
Deprived of writing privilege	11	11
Hard bed	9	9
Shackled to cell gate during working hours	4	3
Deprived of school privilege	3	3
Corporal punishment (per Court sentence)	11	11

Number of convicts who received one or more punishments	357
Number of convicts who received no punishment	376
Number of convicts in custody during the year	733

ST. VINCENT DE PAUL.

Mode of Punishment.	Number.
Application of the hose	10
Bread and water	571
Deprived of remission	252
Deprived of visits for one year	1
Deprived of bed	347
Dungeon	87
Punishment cells	104
Punishment cells, bread and water	44
Shackled to cell gate during working hours	41
To wear Oregon boot	3

Convicts punished during the year	340
Convicts not punished during the year	337
Convicts in custody during the year	677

DORCHESTER.

Punishments.	Number of times Administered.	Number of different prisoners who were Punished.
Dark cell, on bread and water	81	50
Dark cell, shackled to cell gate during working hours	50	23
Bread and water	128	74
Deprived of remission	170	69
Deprived of books	4	4
Deprived of lights	2	2

Number of convicts punished	106
Number of convicts not punished	249
Total number in custody during year	355

MANITOBA.

Penalty.	Number of times Administered.	Number of different convicts Punished.
Bread and water with hard bed	12	8
Bread and water, nine consecutive meals, in penal cells, with hands shackled to cell gate during working hours	5	4
Bread and water, 21 consecutive meals, in penal cells, with hands shackled to cell gate during working hours	6	3
Bread and water, 21 consecutive meals, in penal cells, with hands shackled to cell gate during working hours, and to wear Oregon boot for three months	1	1
Loss of remission	53	34

Number of convicts who received one or more punishments	50
Number of convicts who received no punishment	146
Total in custody during the year	196

BRITISH COLUMBIA.

Punishments.	Number of times punishment was Administered.
Bread and water	37
Deprived of privileges	7
Dungeon	21
Probation term extended	14
Reduced rations	3
Remission forfeited	30
To wear Oregon boot	3
To wear shackles	4
Shackled to cell	2

Number of convicts punished	51
Number of convicts not punished	214
Total in custody during the year	265

ALBERTA.

Punishment.	Number.
Dark cell, bread and water	37
Shackled to cell gate during working hours	46
Oregon boot	2
Corporal punishment (paddle)	4
Remission forfeited	15
Bread and water and hard bed	17

Number of convicts punished	38
Number of convicts not punished	102
Total in custody during the year	140

ACCIDENTS.

MANITOBA.

Date.	Name.	Where Employed.	Nature of Accident.	Cause of Accident.	Days in Hospital.
1908.					
Oct. 17	E. Benyon	New Road	Compound fracture of the left arm	Struck by a stone.	101

CREEDS.

KINGSTON.

	Male.	Female.	Total.
Roman Catholic	174	9	183
Church of England	143	2	145
Methodist	105	2	107
Presbyterian	70	.....	70
Baptist	32	.....	32
Lutheran	16	.....	16
Jewish	5	.....	5
Greek Catholic	2	.....	2
Salvation Army	1	.....	1
Adventist	1	.....	1
Free Thinker	1	.....	1
Quaker	1	.....	1
Congregationalist	1	.....	1
Christian Worker	1	.....	1
Not known (insane)	4	.....	4
Total	557	13	570

ST. VINCENT DE PAUL.

	Number.
Roman Catholic	422
Church of England	47
Presbyterian	23
Methodist	4
Lutheran	3
Baptist	1
Universalist	1
Congregationalist	1
Protestant (unclassed)	2
Jews	6
Total	510

DORCHESTER.

	Number.
Church of England	53
Baptist	32
Methodist	26
Presbyterian	21
Lutheran	1
Roman Catholic	113
Total	246

MANITOBA.

———	Number.
Church of England	46
Roman Catholic	45
Presbyterian	22
Methodist	11
Lutheran	9
Baptist	6
Jewish	2
Unitarian	1
Congregationalist	1
No creed	1
Total	144

BRITISH COLUMBIA.

———	Number.
Roman Catholic	73
Church of England	39
Presbyterian	31
Methodist	25
Buddhist	17
Baptist	5
Lutheran	4
Jewish	2
No creed	8
Total	204

ALBERTA.

———	Male.	Female.	Total.
Roman Catholic	34	1	35
Church of England	13	.....	13
Methodist	12	.....	12
Presbyterian	5	1	6
Lutheran	7	1	8
Baptist	2	.....	2
Mormon	1	.....	1
No creed	13	1	14
Total	87	4	91

APPENDIX H.

LABOUR STATISTICS

LABOUR STATISTICS.

KINGSTON.

Departments.	Days.	Rate.	Amount.
		$ cts.	$ cts.
Baker	2,329	0 30	698 85
Binder twine	8,021	0 30	2,460 35
Blacksmith	6,525	0 30	1,957 53
Carpenter	5,606	0 30	1,681 85
Change room and laundry	6,201	0 30	1,860 48
Clerks (Accountants, Store, and Chief-keeper)	1,775	0 30	532 65
Engineers	6,304	0 30	1,891 49
Farm and stables	9,322	0 30	2,796 68
Hospital	2,425	0 30	727 75
Mason	2,235	0 30	670 75
Printing	541	0 30	162 33
Quarry	9,228	0 30	2,768 53
Shoemaking	4,971	0 30	1,491 53
Steward and kitchen	5,515	0 30	1,654 65
Stone cutting	13,476	0 30	4,043 00
Stone pile, wood and coal	37,283	0 30	11,184 94
Tailoring	10,495	0 30	3,148 66
Tin and paint	1,161	0 30	348 50
Wing and cells	9,516	0 30	2,854 95
Female prison	3,322	0 20	664 50
Total			43,589 97

ST. VINCENT DE PAUL.

Departments.	Days.	Rate.	Amount.
		$ cts.	$ cts.
Brickyard	1,819	0 30	545 70
Bakery	1,212	0 30	363 60
Bookbindery	680	0 30	204 00
Change room	5,555	0 30	1,666 50
Carpenters	8,715	0 30	2,614 50
Barber shop	303	0 30	90 90
Blacksmiths	6,067	0 30	1,820 10
Tinsmiths	2,423	0 30	726 90
Excavation	9,937	0 30	2,981 10
Farm	5,666	0 30	1,699 95
Stonebreakers and cutting wood	20,335	0 30	6,100 50
Masons	6,734	0 30	2,020 20
Engineers, plumbing and steamfitting	6,350	0 30	1,905 00
Electric department	586	0 30	175 80
Steward	5,769	0 30	1,730 70
Shoe shop	5,086	0 30	1,525 80
Tailors	6,182	0 30	1,854 60
Teamsters, drawing freight	942	0 30	282 60
Stonecutters	9,338	0 30	2,801 40
Dormitories and bath-room	10,305	0 30	3,091 50
Piggery	1,328	0 30	398 40
Stable	1,490	0 30	447 00
New cemetery, clearing and fencing	120	0 30	36 00
Quarry	3,247	0 30	974 10
Offices	1,210	0 30	363 00
R.C. chapel	302	0 30	90 60
Library	622	0 30	186 60
Hospital orderlies	974	0 30	292 20
Ornamental grounds	681	0 30	204 30
Messengers	1,212	0 30	363 60
Yard	780	0 30	234 00
Sewerage	628	0 30	188 40
Shovelling snow	673	0 30	201 90
Cutting and packing ice	767	0 30	230 10
Shovelling coal	694	0 30	208 20
Total	128,732	0 30	38,619 75

DORCHESTER.

Departments.	Days.	Rate.	Amount.
		$ cts.	$ cts.
Bakery and kitchen	3,890	0 30	1,167 15
Blacksmith	1,613	0 30	483 90
Barbers	612	0 30	183 60
Boiler room	918	0 30	275 40
Carpenter shop	3,691	0 30	1,107 30
Cell wings	3,672	0 30	1,101 60
Cleaning prison	591	0 30	177 30
Cutting wood	372	0 30	111 60
Cutting ice	115	0 30	34 50
Cutting bushes	329	0 30	98 70
Farm, stables and piggery	8,301	0 30	2,490 30
Hospital orderly	306	0 30	91 80
Library	306	0 30	91 80
Laundry	918	0 30	275 40
Mason	4,639	0 30	1,391 70
Repairing cottages	869	0 30	260 70
Shoe shop	1,995	0 30	598 50
Stone cutter	9,194	0 30	2,758 20
Stone pile	2,554	0 30	766 20
Tailor shop	4,001	0 30	1,200 30
Quarry	3,463	0 30	1,038 90
Office	306	0 30	91 80
Yard (grading, razing old buildings, etc.)	6,270	0 30	1,881 00
Loading old mill in cars	45	0 30	13 50
Repairing sewers	7	0 30	2 10
Shovelling snow	22	0 30	6 60
Unloading coal	116	0 30	34 80
Female ward	2,050	0 20	410 16
Total	61,166	.....	18,144 81

MANITOBA.

Bakery	618	0 30	185 40
Barbers	426	0 30	127 80
Basement orderly	307	0 30	92 10
Blacksmith	378	0 30	113 37
Bookbindery	128	0 30	38 53
Brickyard	806	0 30	241 65
Carpenter	2,596	0 30	778 67
Change room and laundry	1,294	0 30	388 35
Chapels and hospital halls	916	0 30	274 80
Customers	217	0 30	65 10
Engineer	1,923	0 30	577 01
Farm	3,997	0 30	1,199 10
Flower garden	155	0 30	46 50
Hauling freight, etc	485	0 30	145 50
Hospital orderly	305	0 30	91 50
Main hall and office orderlies	942	0 30	282 60
Maintenance of buildings—Cell wings	4,289	0 30	1,286 70
" " " Surroundings	1,399	0 30	419 70
Mason (including stonebreaking)	6,049	0 30	1,814 85
New road	673	0 30	201 90
Shoe shop	1,677	0 30	502 97
Sawing wood	567	0 30	170 10
Steward	1,797	0 30	539 10
Tailor shop	3,799	0 30	1,139 77
Extra gangs (odd jobs)	888	0 30	266 40
Total	36,631		10,989 47

BRITISH COLUMBIA.

Departments.	Days.	Rate.	Amount.
Accountant's office	590	0 30	177 15
Bakery	913	0 30	273 90
Blacksmith shop	3,238	0 30	971 40
Brickyard	1,304	0 30	391 20
Carpenter shop	4,365	0 30	1,309 50
Chapels	293	0 30	88 05
Clearing land	232	0 30	69 60
Farm	4,507	0 30	1,352 10
Fencing	6	0 30	1 80
Halls	296	0 30	88 95
Heating	12	0 30	3 75
Hospital	323	0 30	96 90
Ice, cutting	36	0 30	10 95
Interments	2	0 30	0 60
Laundry and barber shop	2,606	0 30	781 95
Library	528	0 30	158 40
Maintenance of buildings	2,667	0 30	800 10
Maintenance of roads	360	0 30	108 15
New hay barn	208	0 30	62 40
New roads	3,293	0 30	988 05
New shops	5,146	0 30	1,543 95
New walls	2,561	0 30	768 30
Quarry	2,154	0 30	646 20
Shoe shop	2,623	0 30	786 90
Steward	1,755	0 30	526 50
Storekeeper	553	0 30	165 90
Tailor shop	4,437	0 30	1,331 10
Tramway	394	0 30	118 35
Water supply	15	0 30	4 65
Wing	1,668	0 30	500 55
Wright Island	959	0 30	287 70
Total	48,050	.....	14,415 00

ALBERTA.

Brickyard	2,650	0 30	795 00
Carpenters	1,705	0 30	511 50
Clerks	695	0 30	208 50
Cleaning land, ditching and teaming	1,852	0 30	555 60
Coal mine	711	0 30	213 30
Engineer and blacksmith	1,325	0 30	397 65
Laundry, wings and cells	5,694	0 30	1,708 20
Masons	4,161	0 30	1,248 45
Shoemaker	1,234	0 30	370 35
Steward	1,079	0 30	323 70
Tramway, brick clay, sand and gravel	391	0 30	117 45
Tailor	1,767	0 30	530 10
Female ward	862	0 20	172 40
Total	23,266	.....	7,152 20

APPENDIX I.

PER CAPITA COST

KINGSTON.

(*Average population*, 535.)

Head of Service.	Supplies on hand, Mar. 31, 1908.	Expenditure, 1908–09.	Prison products used.	Total.	Less Supplies on hand, Mar. 31, 1909.	Net cost.	Per Capita cost.
Staff	$ 1,541.17	$ 75,448.15	$ 140.73	$ 77,130.05	$ 1,907.41	$75,222.64	$ 140.60
Maintenance of convicts	6,016.78	29,653.11	1,251.25	36,921.14	6,380.74	30,540.40	57.09
Discharge expenses	501.74	2,588.71	.....	3,090.45	675.24	2,415.21	4.51
Working expenses	7,892.95	16,052.55	.....	23,945.50	6,381.85	17,563.65	32.83
Industries	99,342.03	36,696.43	.....	136,038.46	112,515.19	23,523.27	43.96
Land, buildings and equipment	327.55	2,775.46	.....	3,103.01	2,618.41	484.60	.91
Miscellaneous	.....	906.46	.....	906.46	.....	906.46	1.69
Total	$115,622.22	$164,120.87	$ 1,391.98	$281,135.07	$ 130,478.84	$150,656.23	

Gross cost per capita	$ 281.59
Deduct for revenue	60.58
Net cost per capita	$ 221.01

ST. VINCENT DE PAUL.

(*Average population*, 457.)

Staff	$ 919.91	$ 61,277.07	$ 218.49	$ 62,415.47	$ 1,667.34	$60,748.13	$ 132.93
Maintenance of convicts	5,377.69	19,797.32	3,815.85	28,990.86	4,842.44	24,148.42	52.84
Discharge expenses	256.22	1,818.88	.....	2,075.10	653.47	1,421.63	3.11
Working expenses	7,182.16	16,436.20	.....	23,618.36	8,402.85	15,215.51	33.29
Industries	2,039.71	8,552.07	.....	10,591.78	3,677.62	6,914.16	15.13
Land, buildings and equipment	10,186.42	4,496.98	.....	14,683.40	5,086.90	9,596.50	21.00
Miscellaneous	.....	790.75	.....	790.75	.....	790.75	1.73
Total	$ 25,962.11	$ 113,169.27	$ 4,034.34	$ 143,165.72	$ 24,330.62	$118,835.10	

Gross cost per capita	$ 260.03
Deduct for revenue	11.34
Net cost per capita	$ 248.69

DORCHESTER.

(*Average population*, 240.)

Staff	913.62	$ 41,037.39	$ 165.75	$ 42,116.76	$ 626.74	$ 41,490.02	$ 172.89
Maintenance of convicts	3,773.01	11,089.51	1,287.64	16,150.16	2,569.29	13,580.87	56.58
Discharge expenses	314.82	1,389.50	.....	1,704.32	578.90	1,125.42	4.69
Working expenses	1,671.87	9,117.70	.....	10,789.57	1,114.77	9,674.80	40.31
Industries	673.37	3,853.57	.....	4,526.94	557.27	3,969.67	16.54
Land, buildings and equipment	1,552.54	8,004.74	.....	9,557.28	2,011.95	7,545.33	31.44
Miscellaneous	.....	348.11	.....	348.11	.....	348.11	1.44
Total	$ 8,899.23	$ 74,840.52	$ 1,453.39	$ 85,193.14	$ 7,458.92	$ 77,734.22	

Gross cost per capita	$ 323.89
Deduct for revenue	13.23
Net cost per capita	$ 310.66

MANITOBA.

(*Average population*, 129.)

Staff	$ 975.61	$ 33,130.89	$ 127.70	$ 34,234.20	$ 924.22	$ 33,309.98	$ 258.20
Maintenance of convicts	1,648.44	6,773.20	780.97	9,202.61	3,040.90	6,161.71	47.81
Discharge expenses	68.26	1,273.90	.....	1,342.16	118.86	1,223.30	9.48
Working expenses	2,003.87	9,984.64	.....	11,988.51	2,947.88	9,040.63	70.08
Industries	4,994.28	3,145.44	.....	8,139.72	4,045.78	4,093.94	31.73
Land, buildngs and equipment	6,319.43	3,863.57	.....	10,183.00	4,700.89	5,482.11	42.49
Miscellaneous	.....	1,393.96	.....	1,393.96	.....	1,393.96	10.80
Total	$ 16,009.89	$ 59,565.60	$ 908.67	$ 76,484.16	$ 15,778.53	$ 60,705.63	

Gross cost per capita	$ 470.59
Deduct for revenue	45.03
Net cost per capita	$ 425.56

BRITISH COLUMBIA.

(*Average population*, 178.)

Head of Service.	Supplies on hand, Mar. 31, 1908.	Expenditure,	Prison products used.	Total.	Less Supplies on hand, Mar. 31, 1909.	Net cost.	Per Capita cost
Staff	$ 1,109.75	$ 32,514.91	$ 91.41	$ 33,716.07	$ 1,301.34	$ 32,414.73	$ 182.11
Maintenance of convicts	3,625.16	8,277.38	1,475.22	13,377.76	2,453.02	10,924.74	61.38
Discharge expenses	321.99	1,064.45	.....	1,386.44	264.66	1,121.78	6.30
Working expenses	4,014.05	8,787.03	.....	12,801.08	2,925.57	9,875.51	55.45
Industries	1,013.99	2,651.06	.....	3,665.05	1,192.41	2,472.64	13.89
Land, buildings and equipment	1,662.06	25,507.25	.....	27,169.31	5,151.49	22,017.82	123.70
Miscellaneous	.....	1,135.07	.....	1,135.07	.....	1,135.07	6.38
Total	$ 11,747.00	$ 79,937.15	$ 1,566.63	$ 93,250.78	$ 13,288.49	$ 79,962.29	

Gross cost per capita	$ 449.21
Deduct for revenue	15.83
Net cost per capita	$433.38

ALBERTA.

(*Average population*, 86.)

Staff	$ 2,316.74	$ 24,022.55	.....	$26,339.29	$ 1,700.26	$ 24,639.03	$ 286.50
Maintenance of convicts	2,081.10	7,148.53	317.00	9,546.63	2,189.84	7,356.79	85.54
Discharge expenses	146.85	737.97	.....	884.82	178.13	706.69	8.22
Working expenses	383.32	3,057.37	.....	3,440.69	314.47	3,126.22	36.35
Industries	297.55	2,688.01	.....	2,985.56	226.89	2,758.67	32.07
Land, buildings and equipment	2,118.01	8,855.35	.....	10,973.36	3,387.82	7,585.54	88.20
Miscellaneous	.....	1,292.83	.....	1,292.83	.....	1,292.83	15.04
Total	$ 7,343.57	$ 47,802.61	$ 317.00	$ 55,463.18	$ 7,997.41	$ 47,465.77	

Gross cost per capita	$ 551.92
Deduct for revenue	12.03
Net cost per capita	$ 539.89

APPENDIX J.

REVENUE STATEMENT

REVENUE

KINGSTON.

	$ cts.	$ cts.
Revenue—		
Binder twine	17,662 01	
Tailor	1,969 33	
Shoe	720 06	
Carpenter	1,252 10	
Blacksmith	4,203 60	
Tin and paint	282 77	
Stone cutter	204 51	
Stone pile	849 23	
Mason	1 17	
Broom department	114 62	
Printing department	188 31	
Bakery	647 84	
Kitchen	97 45	
Engineer	176 58	
Farm	3,106 69	
Change room and laundry	80 60	
Quarry	109 50	
Rent	198 00	
Hospital	116 96	
Stores	181 82	
		[32,163 15
Casual Revenue—		
Condemned horses sold (4)	240 00	
Sundry condemned articles	4 85	
		244 85
		32,408 00

ST. VINCENT DE PAUL.

	$ cts.	$ cts.
Revenue—		
Tailor	338 22	
Shoe	533 41	
Stores	81 38	
Mason and stone department	629 88	
Carpenter	614 90	
Blacksmith	603 94	
Tin shop	231 90	
Bookbindery	128 84	
Engineer	16 18	
Brickyard	0 35	
Farm	47 24	
Rent	449 28	
Kitchen and bakery	161 61	
Light department	11 25	
Water supply	387 51	
Hospital	40 15	
Survey board (sundry articles)	35 30	
		4,311 34
Casual Revenue—		
Sale of sundry small articles	148 73	
Scrap	329 75	
Condemned horses sold (3)	152 50	
Boiler, pump and engine (condemned)	250 00	
		880 98
		5,192 32

DORCHESTER.

	$ cts.	$ cts.
Revenue—		
Tailor	101 74	
Shoe	129 41	
Carpenter	79 23	
Blacksmith and machine	67 20	
Stone and mason	15 78	
Kitchen and Bakery	107 61	
Hospital	51 97	
Laundry	23 84	
Farm	285 06	
Water	33 00	
Rent	1,391 20	
Stores	295 80	
Labour	10 80	
		2,592 64
Casual Revenue—		
Coal account	85 40	
Barrels	30 00	
Condemned machinery	327 75	
Condemned horse (1)	25 00	
Sundry small articles	47 96	
Junk	66 74	
		582 85
		3,175 49

MANITOBA.

	$ cts.	$ cts.
Revenue—		
Farm	1,952 25	
Kitchen and bakery	650 01	
Engineer	69 21	
Shoe	216 13	
Tailor	744 31	
Carpenter	143 11	
Mason	0 10	
Blacksmith	6 37	
Bookbindery	3 34	
Hospital	44 86	
Labour	73 05	
Stores	53 26	
Change room	0 70	
Land	100 00	
Rent	1,146 00	
		5,202 70
Casual Revenue—		
Sundry small articles	16 20	
Stores, rock crusher	466 52	
Sale of condemned horses (2)	124 00	
		606 72
		5,809 42

BRITISH COLUMBIA.

	$ cts.	$ cts.
Revenue—		
Tailor	66 81	
Shoe	137 44	
Carpenter	198 29	
Blacksmith	26 31	
Kitchen and bakery	814 24	
Farm	196 62	
Stores	207 69	
Hospital	21 39	
Rent	620 00	
Rent of right of way	50 00	
		2,338 79
Casual Revenue—		
Condemned horses (3)	345 00	
" road cart	15 00	
" water meter	43 00	
" brick machine	75 00	
		478 00
		2,816 79

ALBERTA.

	$ cts.	$ cts.
Revenue—		
Tailor	124 52	
Shoe	89 77	
Carpenter	30 46	
Engineer	57 02	
Mason and brick yard	1 70	
Farm	4 44	
Female prison	12 82	
Stores	369 60	
Hospital	9 80	
Kitchen	334 66	
		1,034 79

APPENDIX K.

DETAILS OF EXPENDITURE

Staff.	$ cts.
Salaries.	
General.	
Warden 1, 12 m	2,600 00
Surgeon and Med. Supt, Insane Warden 1	2,400 00
Chaplains 2, 12 m, at $1,200.00	2,400 00
Accountant, etc., 1, 12 m	1,700 00
Engineer 1, 12 m	1,200 00
Wardens clerk 1, 12 m	900 00
Storekeeper 1, 12 m	1,000 00
Asst. storekeeper 1, 12 m	700 00
Steward 1, 12 m	1,000 00
Asst. Steward 1, 12 m	700 00
Hospital overseer, etc. 1, 12 m	900 00
Asst. hospital overseer, etc. 1, 12 m	700 00
Matron 1, 12 m	600 00
Asst. matron 1, 12 m	450 00
Electrician 1, 12 m	900 00
Asst. electrician 1, 12 m	700 00
Asst. engineer 1, 12 m	700 00
Messenger 1, 12 m	600 00
Firemen 2, 12 m, at $600.00	1,200 00
Industrial.	
Chief trade instructor 1, 12 m	1,000 00
Supt. binder twine 1, 12 m	1,200 00
Asst.-supt. binder twine 1, 12 m	800 00
Trade instructors 4, 12 m. at $800.00	3,200 00
" 3, 12 m. at $800.00 less deductions	2,328 54
Asst. farm instructor 1, 12 m	700 00
Stable guards 3, 12 m. at $600.00	1,800 00
Police.	
Deputy Warden 1, 12 m	1,500 00
Chief keeper 1, 12 m	1,000 00
Chief watchman 1, 12 m, at $800.00 less deduction	789 11
Keepers, 8, 12 m. at $700.00	5,600 00
" 3, 12 m. at $700.00 less deduction	2,088 73
Watchman, 1, 12 m	650 00
" 3, 12 m. at $650.00 less deduction	1,941 16
" 2, broken periods	1,029 17
Guards, 28, 12 m. at $600.00	16,800 00
" 11, 12 m. at $600.00 less deductions	6,562 47
Temporary police officers	1,007 30
	71,346.48
Uniforms.	
Antisqueak, 8¾ lbs	70
Buttons, gilt, 15⅞ gross	47 29
Blacking, 23 doz	20 70
Canvas, 245½ yards	37 25
Caps, staff, 4	13 33
" hair seal, 18	54 00
" peaks 5 doz	13 55
Crowns, gilt, 3	1 70
Cheese cloth, 178 yards	7 12
Denim, 294¼ yards	47 16
Drilling, 105¼ yards	15 79
Eyelets and hooks 18 m	7 68
Felt, boot, 29 lbs	30 15
Frieze, 154¾ yards	144 70
Hair, cloth, 50½ yards	13 64

Uniforms—Con.	$ cts.
Holland, 55 yards	11 00
Hooks and eyes, 2 gross	70
Ink burnishing, 5 gals	2 00
Italian cloth, 31½ yards	16 25
Khaki, 342¾ yards	373 59
Lining, mohair 96½ yards	21 18
" drab, 117 yards	58 50
Leather, sole, 2,251 lbs	410 36
" welt, 60 lbs	21 06
" pebble cow, 125¼ lbs	16 28
" bridle, 40 lbs	14 40
" calf, 521 lbs	149 78
" box calf, 254½ ft	48 35
Laces, 4 gross	5 40
Linen, 50 yards	10 00
Mitts, 88 pairs	.89 00
Nails, shoe zinc, 35 lbs	4 55
" iron, 40 lbs	2 00
Padding, 65½ yards	22 92
Rain coat, 1	13 50
Rubber tissue, 2 lbs	2 50
Silesia, 187½ yards	34 69
Stars, gilt, 3 pairs	2 14
Scarlet cloths, 5 yards	16 25
Serge, 328¾ yds	410 94
Thread, linen, 57 lbs	136 50
" silk machine, 4½ lbs	28 57
" shoe, 24 lbs	19 65
" hardash, 3 lbs	15 00
Tweed, 81 yards	46 00
Wire and clasps, 4 doz	1 00
Webbing, boot, 6 rolls	1 50
" gaiter, ½ gross	1 25
Wadding, 4 bales	21 00
Wax, shoe, 15 lbs	1 50
Freight	13 39
	2,497 46

Mess.	$ cts.
Apples, fresh, 6 bbls	10 50
" evaporated, 600 lbs	54 00
Beef, 9698 lbs	555 65
Butter, 1428½ lbs	368 92
Baking, powder, 18 lbs	4 50
" soda, 15 lbs	30
Cheese, 630¼ lbs	75 63
Currants, 469 lbs	32 83
Corn starch, 40 lbs	2 60
Cloves, 1 lb	30
Carroway seeds, 1 lb	20
Cream tartar, 1 lb	22
Cracked corn, 5 lbs	10
Eggs, 386 doz	69 48
Essences, 3 doz	1 80
Fish, fresh, 1040 lbs	104 00
Figs, 196 lbs	9 80
Ginger, 5 lbs	1 00
Lard, 1250 lbs	137 50
Lemons, 3 doz	45
Mustard, 12 lbs	2 40
Macaroni, 18 lbs	1 80
Milk, 349½ gals	55 92
Nutmegs, 3 lbs	1 05
Prunes, 450 lbs	28 71
Raisins, 252 lbs	15 75
Sugar, granulated, 1400 lbs	66 50
Sage, ½ lb	20
Tapioca, 30 lbs	2 10
	1,604 21

KINGSTON—(*Continued.*)

MAINTENANCE OF CONVICTS.

Rations.

Beef, 118627 lbs	6,796	22
Barley, pot, 2260 lbs	67	80
Bacon, 17859 lbs	1,696	63
Beans, 22687 lbs	680	61
Cabbage, 1120 lbs	22	40
Flour, 1440 bbls	6,913	10
Herrings, 25 bbls	131	25
Lard, 570 lbs	62	70
Milk, skim, 58900 lbs	147	25
Molasses, 1057 gals	348	81
Onions, 2380 lbs	35	70
Pease, split, 10420 lbs	247	54
Potatoes, 1689¾ bags	1,429	35
Pepper, 200 lbs	32	00
Pickles, 90 gal	56	00
Rice, 11,190 lbs	346	90
" flour, 200 lbs	8	00
Rolled oats, 33,750 lbs	1,181	25
Sugar, 36,617 lbs	1,556	22
Salt, fine, 60 bbls	78	00
" coarse, 280 lbs	1	12
Spice, mixed, 10 lbs	1	70
Tea, 1,151½ lbs	184	24
Turnips, 4⅕ tons	36	45
Vinegar, 602 gal	108	36
Yeast, 448 lbs	122	40
Freight and cartage	213	11
Christmas extras	115	00
	22,620	11
Less refund of expenditure	153	10
	22,467	01

Prison Clothing.

Acid, oxalic, 1 lb		10
Buttons, trouser, 120 gross	12	00
" coat, 36 gross	15	98
" shirt, 12 gross	1	44
Cotton, 1,173½ yards	108	55
Cottonade, 113 yards	20	34
Duck, 153¾ yards	27	29
Drill, 124 yards	12	09
Denim, 3,955 yards	869	57
Elastic, web, ½ yard		38
Galatea, shirting, 4,307¾ yds	538	46
Goggles, ½ gross	2	00
Hats, straw, 25 doz	27	50
Hose, 2 doz	6	00
Hair pins, 36 pprs		72
Hooks and eyes, 1 gross		30
Leather, sole, 5,443 lbs	1,162	72
" upper, 557 lbs	233	94
" sheepskins, 2 doz	9	45
" russetts, 10 doz	110	00
" Canada kip, 96 lbs	40	32
" laces, 42 gross	36	60
Mole skin, 50 yards	20	00
Mufflers, 10⅛ doz	16	86
Nails, shoe, iron, 265 lbs	13	25
Nails, shoe, 45 lbs	5	85
Oils, neatsfoot, 15 gals	13	25
Prison cloth, 1233¾ yards	1,098	05
Pegs, shoe, 3½ bus	3	68
Rivets and burs, 26 lbs	6	50
Silesia, 112½ yards	8	98
Thread, cotton, 5 gross	20	50
" linen, 55 lbs	107	10
Tallow, 6 lbs		48
Tape, 10 gross	4	60

MAINTENANCE OF CONVICTS—*Con.*

Prison Clothing—Con.

Tacks, shoe, 40 lbs	5	25
Underclothing, 190 doz	853	10
Yarn, 883 lbs	392	93
Freight	44	34
	5,850	47
Less refund of expenditure	24	00
	5,826	47

Hospital.

Butter, 260 lbs	65	00
Biscuits, 82½ lbs	7	23
Cotton batting, 3 lbs		45
Cornstarch, 40 lbs	2	60
Drugs and medicines	575	58
Eggs, 242 doz	43	92
Essences, 2 doz	1	20
Keep of insane prisoner	68	42
Lard, 40 lbs	4	40
Milk, 1,894 gals	303	04
Nutmegs, ½ lb		18
Oranges, 9 doz	2	70
Sugar granulated, 110 lbs	5	24
Services of nurse for insane female prisoner	208	37
Tapioca, 140 lbs	9	80
Tobacco, 112½ lbs	56	25
Truss, 1	4	50
Pins		75
	1,359	63

DISCHARGE EXPENSES.

Freedom Suits, and Allowances.

Buttons, coat and vest, 15 gross	6	49
" collar, 25 gross	3	12
Braces, 13 doz	16	25
Braid, 20 yds		60
Boots, 1 pair	2	25
Canvas, 500 yards	36	25
Collars, 7 doz	7	00
Coats, women's 4	11	00
Cottonade, 120½ yards	21	69
Caps, 1½ doz	4	50
Dress goods, 30 yards	9	00
Flannel, 20 yards	2	50
Gloves, 3½ doz	10	50
Hats, women's 3	4	50
" mens, 7 doz	33	25
Handkerchiefs, 11 doz	6	60
Jean, 56 yards	4	20
Leather, canadian kip, 128½ lbs	80	14
" sole, 300 lbs	70	50
Linen, 50¾ yards	9	14
Outfit for female prisoner	11	20
Rubbers, 1 pair		50
Silk, sewing 1 lb	5	00
" B. H. twist, 3 lbs	13	50
Shirts, 10½ doz	60	50
Silesia, 309¾ yards	26	78
Sateen, 168 yards	16	80
Ties, 12 doz	12	00

KINGSTON—(*Continued.*)

DISCHARGE EXPENSES.—Con.	
Freedom Suits and Allowances.	
Tweed, 949½ yds	293 50
Thread, linen, 2 lbs	3 60
Underclothing, 23 doz	96 75
Webbing gaiter, ½ gross	1 25
Freight	85
Transportation and allowance (154)	1,695 00
	2,576 71
Transfer and Interment.	
Interments, (3)	12 00
WORKING EXPENSES.	
Heat, Light and Water.	
Coal screenings, 3,487 tons	8,978 67
Carbon holders, 6	1 97
Coal oil, 529.30 gals	76 72
Globes, outer, 6	7 50
Lamps, electric, 300	56 00
Lantern globes, 2 doz	1 50
Matches, case ¼	1 17
Wood, cord, 27¾ cords	138 75
Freight and express	1 25
Duty on coal	668 36
Cutoms entries	1 00
	9,932 89
Maintenance of Buildings.	
Alabastine, 100 lbs	7 00
Aluminum paint, 2 quarts	3 00
Asbestos sheets, 201 lbs	10 05
Bolts, carriage, 200 lbs	1 19
" brass, 15½ lbs	4 65
Buttons, push, 12 sets	7 20
Bracket, arms, 150	37 50
Basins, 2	3 50
Burlap, 26 yards	9 10
Colours, assorted, 1,185 lbs	43 86
Cord, sash 10½ yards	3 68
Cement, 56 bbls	92 80
" stove, 10 lbs	70
Cleanser, 300 lbs	15 00
Couplings, 3	30
Cedar posts, 100	20 00
Camphor, 1 lb	1 00
Cable, 850 feet	59 50
Closet connections, 5	10 00
" rings, 5 doz	6 25
Cord, electric, 100 yards	4 25
Chloride of lime, 267 lbs	10 68
Drop black, 10 lbs	1 50
Emery cloth, 1½ rm	25 05
Fire bricks, 500	15 00
" clay, 2,150 lbs	12 90
Flanges, 2	1 59
Furnace casting	5 50
Fuse blocks, 30	3 00
Glass, 6 boxes	21 80
" 7 lights	1 67
Hinges, 9 doz	3 23
" strap, 24 lbs	1 50
Heating system, alterations	309 96
Iron, bar, 2,656 lbs	58 85
" galvanized, 3,345 lbs	153 17
" swede, 32 lbs	1 12
" hammered, 77 lbs	4 62

WORKING EXPENSES—*Con.*	
Maintenance of Buildings—Con.	
Iron, angle, 40 lbs	1 42
Japan, 10 gals	7 00
Kreso, 392 gals	343 20
Lumber, oak, 1,224 feet	48 96
Lead, white, 2,500 lbs	150 00
Locks, pad, 1 doz	10 20
Liquid, granite, 1 gal	4 00
Metal, polish, 208 lbs	41 60
Nuts, hex, 50 lbs	4 60
Nails, wire, 700 lbs	17 75
" roofing, 100 lbs	3 25
Oil, boiled, 131 gals	78 52
" raw, 94⅓ gals	53 90
Putty, 457 lbs	8 23
Pipe, galvanized, 90 pcs	12 60
Pulleys, sash, 5 doz	7 50
Paper, cyclone, 8 rolls	4 80
" wall, 5 rolls	17 70
" border, 69 yards	6 06
Rivets, iron, 31 lbs	1 55
" steel, 60 lbs	1 30
Rosettes, 150	37 50
Rubber wrings for closet valves	7 50
Soap, laundry, 7,800 lbs	243 76
" fig, 11,866 lbs	593 30
Soda, washing, 22,500 lbs	225 00
Sapolio, 45 doz	49 20
Screws, wood, 36 gross	8 17
" coach 36	49
Steel plate, 49 lbs	1 23
Sockets, electric 150	18 50
Shades, electric 7	3 61
Soda, bicarb,	74
Stove, dampers, 2	50
" repairs to	1 50
" use of	1 00
Sand, 16 cubic yards	17 60
Tees, 7	5 20
Toilet, paper, 40 cases	253 64
Turpentine, 136. 17 gals	102 13
Traps, mouse, 6	50
Tanglefoot, 2 box	1 00
Tape, electric, 10 lbs	10 00
Valves, repairs to	16 80
Wire, cloth, 125 feet	7 00
" spring, 4¾ lbs	1 43
" asbestos covered, 100 feet	12 50
" fuse, 6 lb	4 46
Washers, 2½ gross	3 88
" hot water, 450	2 25
Whiting, 335 lbs	2 51
Warden's grounds, care of	71 61
Duty,	10 10
Customs entries,	1 50
Freight and express	28 71
	3,540 63
Less refund of expenditure	7 85
	3,532 78
Maintenance of Machinery.	
Asbestos, 118 lbs	5 90
Belting, leather, 57 feet	13 54
Boiler, repairing	166 00
" compounds, 360 lbs	93 00
" tubes, 42½ feet	31 50
" inspection,	40 00
Bricks fire, 1,500	45 00
Burs, copper, 1 lb	28

WORKING EXPENSES—*Con.*

Maintenance of Machinery.—Con.

Clay, fire, 1,200 lb	7 20
Castings, iron, 2,822 lbs	103 33
" brass, 45 lbs	15 61
Cylinder, brass, 1	5 00
Fire bricks, 1 set	2 50
Flanges, 2	2 00
Gear, 1	65
Gauge glasses, 6½ doz	6 27
Hose, steam, 78 feet	34 50
" " fittings	1 44
Oil engine, 203.80 gals	75 41
" cylinder 206 gals	65 92
" machine, 43 gals	11 61
Packing, asbestos, 6 lbs	3 00
" rainbow, 50 lbs	34 00
" spiral, 39¼ lbs	27 48
Plumbago, 5 lbs	1 25
Piston rings, 2	10 50
Spindle, 1	3 00
Trap, steam, 1	20 00
Tallow, 13 lbs	1 04
Valves, gate, 1	20 00
" pump, 42	11 90
" parts for flushing	10 80
Wick asbestos, 10 lbs	450
" cotton, 5 lbs	1 25
Waste cotton, 1,201 lbs	126 34
Welding, tubes	33 75
Duty	33 80
Customs entries	50
Freight and express	15 23
	1,085 00

Chapels.

Candles, 36 lbs	18 00
Tapers, 3 boxes	75
Music paper, 2 quires	80
Care of chapel	54 20
Scapulars, 5 doz	3 00
Floats, 6 boxes	90
Batts, 3	30
Olive oil, 1 gal	3 00
Palm	1 00
Wine, 3 bottles	1 50
Organist's salary	50 00
Freight	40
	133 85

School and Library.

Chalk, 2 boxes	60
Pencils, slate, 3 boxes	39
Books	25 00
Subs to magazines	64 20
	90 19

WORKING EXPENSES—*Con.*

Office Expenses.

Stationery, account	328 42
Printing, account	357 13
Telegrams	9 95
Postage	185 00
Telephone exchange	289 50
" long distance	13 75
Ink, 18 gals	27 75
" 6 doz	3 00
Subscriptions to papers, etc	10 25
Premium on officers' bonds	24 00
Containers	2 25
Freight and express	26 84
	1,277 84

INDUSTRIES.

Farm.

Axle, 420 lbs	28 35
Boars, 2	28 00
Bitts, 4	1 17
Brushes, horse, 1 doz	3 75
Bran, ½ ton	11 00
Busnes for making ice	1 00
Cabbage plants, 4,000	10 00
Cart trees, 2	60
Forks, hay, 6	3 60
" diging, 4	4 16
Harness, sundries	7 25
" dressing, 6 quarts	3 00
Horse, 1	190 00
Implements, parts for	27 10
Paris Green, 15 lbs	4 50
Rivets, 1½ lbs	20
Seeds, assorted	91 74
Steel, spring, 5 lbs	30
Services of veterinary	36 75
Threshing grain	58 34
Weighing hogs	2 75
Whip, 1	1 00
Freight and express	4 29
	518 85

Trade Shops.

Awls, assorted, 10¼ gross	15 05
Acid, muriatic, 5 gals	2 00
" oxalic, 1 lb	10
Axle clips, 4 pairs	26
Benzine, 20 gals	6 00
Bolts, carriage, 600	2 91
" tire, 400	76
" machine, 50	46
Brushes, banister, 2	97
" dandy, 12	2 40
" varnish, 1 doz	3 30
" paper hangers, 1	1 25
" sash tools, 2 doz	2 49
" camel's hair, ½ doz	4 00
Buttons, coat, 7½ gross	4 33
" gilt, 5 gross	20 58
" trouser, 75 gross	7 74
" tufting, 100	25
Beaver, cloth, 466⅜ yards	1,265 51
Buckles, skate, 1 gross	1 15
" bag, 15 gross	15 35
" belt, 563	6 00

KINGSTON—*Continued.*

INDUSTRIES—Con. *Trade Shops*	
Buckles, harness, 10 gross	11 14
Blueing, 5 lbs	1 00
Broom corn, 2,457 lbs	134 68
Borax, 30 lbs	1 50
Bits, auger, ½ doz	96
Bristles, 1 lb	6 50
Burning kiln	8 75
Binding, stay, 2 gross	1 38
" tape, 6 gross	2 76
Braid, gilt, 4 yards	11 40
Box and screw for vice	5 00
Bristle board, sheets, 1,500	31 50
Coal, smiths, 4.200 tons	27 42
" screenings, 1.642.857 tons	3,990 90
Colours, assorted, 81 lbs	13 37
Castings, malleable, 858 lbs	45 50
Chalk, tailors, 12 boxes	3 84
" lump, 20 lbs	30
Cleaning fluid	1 80
Charcoal, 150 bush	27 00
Clip ties, 1 lb	10
Chisels, 6	5 40
Cardboard, 3 bundles	1 05
Cement, leather, 1 doz	90
Chain, 12 ft	1 42
Clothespins, 6 doz	10
Channel openers, 9	1 42
Chain, steel, 60 ft	1 50
Cork, ½ doz	50
Cutting blades, 1 doz	1 50
Cheese cloth, 454 yds	18 16
Canvas, 485½ yds	69 66
Cement, channel, 6 gals	7 50
Chair web, 10 yds	25
Copper, sheet, 12 lbs	3 60
Cutter, 1	34
Drilling, 179¼ yds	20 38
Drills, twist, 2½ doz	3 05
" straight shank, 19 doz	2 18
" taper, shank, 2 doz	3 75
Duck, 55½ yds	8 32
Drop, black, in Japan, 1 lb	45
Dies, 2 pairs	7 33
Dies, 2 lbs	2 35
Dressing boot, 5 gals	3 75
Emery powder, 194 lbs	9 70
" straps, 1 doz	1 50
" cutters, 2 set	30
" cloth, 2¾ rms	47 18
" wheels, 3	6 35
Eyelets, 18 m	4 14
Files, assorted, 10½ doz	10 69
Fuse, 500 ft	5 00
Felloe plates	05
Force cup, 1	1 00
Felt, 3 yds	7 50
Flannel, 280¼ yds	138 13
Fronts, brass, ½ doz	1 25
Gasoline, 20 gals	6 00
Graining fluid, 2 tins	66
Goggles, wire, 6 doz	2 00
Gum tragacenth, 2 lbs	80
Gold, lace, 150¾ yds	37 69
Grease, axle, ½ gross	3 50
Grindstone, 481 lbs	9 62
Glass, 1 box	3 50
Handles, pick, 4 doz	23 40
" awl, 4 gross	1 20
" broom, 2 m	44 00
" sledge, 4 doz	8 20
" milk can, 1 doz	2 50

INDUSTRIES—Con. *Trade Shops*	
Handkerchiefs, silk, 17¼ doz	207 00
Hats, 12⅝ doz	154 00
Hickory	2 00
Hemp, 5 lbs	4 00
Heel shave blades, 6	2 25
Hoes, 2	2 00
Hooks, boot, 12 m	6 00
Hook and eyelet machine	2 75
Holland, 55 yds	11 00
Hinges, 17 pairs	75
Iron, bar, 2,389 lbs	56 29
" hoop, 295 lbs	9 00
" tinned, 386 lbs	45 57
" band, 144 lbs	3 75
" galvanized, 657 lbs	29 58
" Russian, 139 lbs	32 27
" angle, 117 lbs	3 33
" lowmoor, 71 lbs	5 42
Italian cloth, 348½ yds	174 75
Ink boot, 6 qts	2 40
Iron stand, 1	1 75
Knitting machine, 1	45 35
Knives, shoe, 1 doz	1 40
" guard, 1 doz	1 40
" welt, ½ doz	95
Knitting machine, parts for	6 42
Knobs, carriage, 1 gross	75
Lining, sleeve, 119½ yds	22 71
" mohair, 142½ yds	31 35
Leather, lace, 57⅜ lbs	43 31
" French kid, 216¾ lbs	203 74
" pebble cow, 313½ lbs	40 72
" pebble calf, 24¼ lbs	4 85
" box calf, 401¼ ft	79 43
" belt, 377⅜ ft	94 43
" dongola, 41¼ ft	11 93
" welt, 292 lbs	105 12
" sole, 500 lbs	117 50
" harness, 110 lbs	37 57
Laces, 4 gross	4 00
Lumber, elm, 896 ft	22 40
" ash, 490 ft	14 70
" basswood, 1,547 ft	38 67
" oak, 2,426 ft	97 04
" maple, 2,044 ft	61 32
" pine T. & G., 500 ft	17 00
" birch, 824 ft	40 08
" assorted, 2,656 ft	66 40
Line, 30 lbs	15 00
" deep sea, 25 lbs	5 00
Labour	1 20
Leaders, 5 lbs	2 77
Linen, 192½ yds	35 54
Lace, gilt, 53½ yds	13 37
Lasts, 37 pairs	14 80
Logs, hickory and ash, 192	19 20
Marline, 1 doz	2 00
Millboards, 6 bdls	9 00
Measures, tape, 1 doz	37
Milk can fittings	3 06
Nails, clout, 18 packages	1 53
" clear, 1 box	60
" moulding, 40 lb	2 75
" lining, 2 papers	10
" wire, 100 lbs	2 40
" horseshoe, 40 lbs	4 45
" brass, 1m	60
Nippers, 4 pairs	3 00
Needles, sewing, 250 papers	6 25
" knitting machine, 864	12 99
" sewing, machine, 66 doz	13 20

INDUSTRIES—Con.	
Trade Shops.	
Nuts hex, 26 lbs	1 96
" 200	2 08
Oil, engine, 48[20] gals	17 83
" cylinder, 29 gals	15 66
" sperm, 1 gal	2 00
" machine, 42½ gal	11 48
Ornaments, 2	20
Powder, blasting, 5 kegs	12 00
Paper, drafting, 4 rolls	14 45
" sand, 30 qrs	6 38
" printing, 627 lbs	40 33
" " 60 rms	161 32
Pincers, shoe, ½ doz	5 00
Prussate, potash, 1 lb	40
Padding, 22¼ yds	7 78
Pencils, carpenters, 6 doz	1 32
Planes, forming, 2	5 00
Pins, 1 gross	60
Pantisote, 3 yds	3 75
Pump, plunger, 1	30
Potash, ½ lb	20
Plane irons, 1 doz	2 98
Pulley, split, 1	2 60
Picks, 3 doz	15 00
Pulls, drawer, ¼ doz	30
Quads	11 10
Rivets, shoe, 65 lbs	6 50
" iron, 96¾ lbs	6 44
" turned, 4 lbs	43
" Norway, 30 lbs	1 90
Rasps, shoe, 2¾ doz	6 46
Rubber heels, 1 pair	25
Rims ½ set	3 30
Rebeaming warp	3 50
Resin, 100 lbs	4 00
Rubber, matting, 113¼ lbs	38 58
" tissue, 2 lbs	2 50
Rings, japaned, 6 doz	39
Rosettes, 1 doz	50
Runners, 4 pairs	8 70
Roller, printers, 1	5 75
Steel, tire, 43 lbs	1 25
" spring, 26 lbs	91
" calk, 38 lbs	1 33
" square, 102 lbs	10 20
" die, 23 lbs	2 76
" polished, 54 lbs	6 48
" hammered, 50 lbs	3 00
" boiler plate, 892 lbs	22 30
" angle, 2,110, lbs	37 98
" machine, 482 lbs	13 26
" rods, 133 lbs	5 15
" cast, 1,234 lbs	123 60
" self hardening, 40 lbs	26 00
" S.S., 40 lbs	1 00
Screws, sets, 350	5 83
" wood, 69 gross	24 85
Saws, c. cut, 1	4 00
" blades, gig, 6	60
Subscriptions to trade journals	29 60
Sewing machine parts for	3 82
Silk, machine, 8 lbs	40 00
" twist B.H., 5 lbs	22 50
Shovels, 4 doz	38 33
Staples, broom, 9 lbs	1 08
Socks, 4¾ doz. pairs	13 00
Staples, 10 lbs	1 50
Shaft couplings, 1 pair	45
Steps, malleable, 1	51
Shaft tips, 1 pair	15
Starch laundry, 80 lbs	5 60

INDUSTRIES—Con.	
Trade Shops	
Sel Ammonia 2 lbs	26
Scarlet cloth, 13½ yds	43 06
Spokes, 1 set	3 80
Squares, steel, 1 doz	9 20
Silesia, 127½ yds	38 06
Shields, 3⅜ doz	1 58
" brass, 6 doz	3 10
Tacks, cut, 7 doz. papers	1 83
" shoe, 50 lbs	7 50
" lasting, 5 gross	1 25
Thread, linen, 53 lbs	122 05
" cotton, 16 gross	65 60
" hardash, 3 lbs	15 00
Tape, 2 gross	92
Tin, 16 boxes	69 10
" charcoal, 3½ boxes	22 75
" block, 27½ lbs	9 63
" pig, 137 lbs	47 95
Tweed, 651¾ yds	367 53
Taps, hand, 4 sets	3 25
Twine, 2 balls	20
" 52 lbs	18 20
Thermometers, 2	30
Turning poles	20 00
Turner with stand	12 55
Varnish, 16½ gals	34 00
Valve foot	30
Wire, broom 218 lbs	13 41
Wire, cotter, 105 lbs	7 35
" brass, 3½ lbs	1 23
" s p. 2 lbs	12
" steel, bed, 1,100 lbs	79 90
" iron, 236½ lbs	8 28
" cloth, 500 sq. ft	10 00
" wove, 15 sq. ft	4 74
Wax, bees, 46 lbs	16 10
" shoe, 5 lbs	50
Wrenches, 3	1 50
" parts for	2 90
Welding compounds, 75 lbs	7 50
Washers, 30 lbs	1 93
Whiffletree plates, 1	12
Wadding, 5 bales	26 25
Wood, 25 cords	125 00
Warp, 1,785 lbs	64 93
Webbing, 9 yds	27
Wicks, 2	18
Wheels, corundum, 9	26 91
" set, 3	27 00
Customs entries	50
Duty	19 15
Containers	2 75
Freight and express	84 05
	10,695 46

Binder Twine.	
Bags, 8 m	511 75
Belting, 550 ft	136 62
Belt fasteners, 100	2 70
Bolts, machine, 48	96
Capstan pullies, 12	3 00
Degras, 2,547 lbs	82 77
Glue, 1 pint	50
Gears, intermediate, 36	3 60
" bevel, 12	3 60
Hemp, 297,827 lbs	22,648 87
Labour	9 76
Nuts, hex, 1 lb	22

KINGSTON—*Continued.*

INDUSTRIES—Con.	
Binder Twine—Con.	
Nails, trunk, 6 lbs	36
Machinery, parts for	20 98
Oil, machine, 90⅕ gals	24 49
" engine, 83½ gals	30 82
" cylinder, 24 gals	7 68
" twine, 5,018 gals	551 98
" black, 135 gals	18 23
Paper, 5,397 lbs	146 99
Postage stamps	153 00
Pullies, 67 lbs	3 35
Patterns	6 50
Spool heads, 335	26 26
Subscription to trade journals	4 50
Telegrams	1 61
Twine, balls, 30	2 02
Travelling expenses	73 35
Worm gears, 24	6 60
Bank charges, on cheques	9 23
Duty	110 40
Customs entries	2 00
Freight	877 42
	25,482 12
EQUIPMENT.	
Furnishing.	
Blind, window, 1	75
Blankets, 900 lbs	387 00
Cotton, twilled, 2,833½ yds	298 77
Hair felt, 3,900 sq. ft	214 50
Linen, 10 yds	5 00
Napkins, table, 4 doz	7 00
Soap, castile, 2,740 lbs	274 00
" shaving, 30 lbs	10 50
Ticking, 546¼ yds	101 05
Freight	8 85
	1,307 42
Utensils and Vehicles.	
Ammunition, 3,300 rounds	76 12
Brushes, bannister, 5	2 18
" scrub, 6 doz	6 12
" shoe, 1 doz	3 30
" cell, 10 doz	3 00
Burners, 4 doz	3 70
Bathbrick, 2 doz	65
Crockery	14 53
Casting for range	80
Clothes pins, 6 doz	15
Clippers, hair, 1 pair	1 42
Coupling, 1	40
Cleaver, 1	2 00
Clock dials, 2,000	16 00
Duster, 1	75
Fire bricks for range	8 50
" hose and coupling, 200 feet	116 00
Fork, cook's, 1	50
Grate for range, 1	3 00
" casting, 21 lbs	1 89
Hose and fittings, 100 ft	25 90
" coupling, 1	20
Inspection of scales	8 50
Kettles, 2	3 25
Lawn mower 1	7 50
" repairs to	3 25
Mugs, 12 doz	20 10
Oil, gun, 4 bottles	1 25

EQUIPMENT—Con.	
Utensils and Vehicles.	
Oil can, 1	15
Potato parers, 2 doz	15 00
" " parts for	8 70
Pot agate, 1	1 15
Repairs to razors	5 00
" clippers	50
" clocks	21 90
Rims, 1 set	2 35
Rat traps, 3	45
Range fittings	6 84
Scoops, coal, 2½ doz	27 00
Spoons, 7 doz	3 25
Shears, garden, 1 pair	1 25
Shovels, 2 doz	19 20
" snow, 1 doz	4 05
Saw blades, butchers, 1	40
Spokes, 1 set	4 48
" 1 doz	1 56
Shovels, fire, 1	25
Thermometers, 5	2 16
Tin xx, 4 box	26 00
Water front for range	3 50
Wicks, stove, 1 doz	44
Weights, 3	73
Wheels, truck, 2	4 28
Washboards, 3	75
Watchman's clock and dials	15 00
Customs entries	75
Duty	6 00
Freight	5 15
	519 20
Land and Buildings.	
Cement, 138 bbls	261 00
Iron, bar, 885 lbs	19 47
" galvanized, 84 lbs	3 91
Pickets, 1,200	21 60
Sand, 125½ cu. yds	112 90
Clipper, 1	8 75
Shingles, 25 m	85 00
Tile, 15 m	209 10
Wire, 740 lbs	22 20
Purchase of land	200 00
Freight	4 91
	948 84
MISCELLANEOUS.	
Advertising and Travel.	
Advertising	485 21
Travelling expenses	335 25
Street car tickets	36 00
	856 46
Special.	
Prizes for target practice	50 00
Total	$164,120 87

KINGSTON.

RECAPITULATION.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	71,346 48	
Uniforms and mess	4,101 67	
		75,448 15
Maintenance of Convicts—		
Rations	22,467 01	
Clothing and medicines	7,186 10	
		29,653 11
Discharge Expenses—		
Freedom suits and allowances	2,576 71	
Transfer and interment	12 00	
		2,588 71
Working Expenses—		
Heat, light and water	9,932 89	
Maintenance of buildings and machinery	4,617 78	
Chapels, schools and library	224 04	
Office expenses	1,277 84	
		16,052 55
Industries—		
Farm	518 85	
Trade shops	10,695 46	
Binder twine	25,482 12	36,696 43
Prison Equipment—		
Furnishings	1,307 42	
Utensils and vehicles	519 20	
Land, buildings and walls	948 84	
		2,775 46
Miscellaneous—		
Advertising and travel	856 46	
Special	50 00	
		906 46
Total		164,120 87

ST. VINCENT DE PAUL.

Staff.	$ cts.
Salaries.	
General.	
Warden, 1, 12 mos	2,400
Surgeon, 1, 12 mos	1,600
Accountant, 1, 12 mos	1,400 00
Chaplains, 2 12 mos, @ $1,200.00	2,400 00
Warden's clerk, etc., 1, 12 mos	1,000 00
Engineer, 1, 12 mos	1,000 00
Storekeeper, 1, 12 mos	900 00
Asst. storekeeper, 1, 12 mos	700 00
Steward, etc., 1, 12 mos	1,000 00
Asst. steward, 1, 12 mos	700 00
Hospital overseer, etc., 1, 12 mos	900 00
Electrician, 1, 12 mos	800 00
Gatekeeper, 1, 12 mos	700 00
Fireman, 1, 12 mos	600 00
" broken periods	550 00
Messenger, 1, 12 mos	600 00
Industrial.	
Chief trade instructor, 1, 12 mos	1,000 00
Trade instructors, 7, 12 mos., @ $800.00	5,600 00
" 1, 12 mos., less deduct'n	792 70
" 1, broken period	733 26
Stable guard, 1, 12 mos	600 00
" 1, 12 mos., less deduction	590 00
Police.	
Deputy warden, 1, 12 mos	1,500 00
Chief keeper 1, 12 mos	1,200 00
Chief watchman, 12 mos	800 00
Keepers, 6, 12 mos., @ $700.00	4,200 00
" 1, 12 mos., less deduction	699 00
Watchmen, 4, 12 mos., @ $650.00	2,600 00
" 1, 12 mos., less deduction	645 83
" 1, broken period	433 28
Guards, 23, 12 mos., $600.00	13,800 00
" 6, 12 mos., $600., less deduction	3,560 03
" 2, broken periods	600 07
Temporary officers	849 44
	57,453 61
Retiring Allowances.	
A. Legault	56 25
L. Filiatrault	83 50
Jas. Keiley	345 83
	485 58
Uniforms.	
Buckles, pant, 5 gross	90
Buttons, 44 gross	21 63
Badges, staff, gold, 4 only	8 00
Boot, web, 4 rolls	1 20
Canvas, 300 yds	44 00
Cheese cloth, 381 yds	15 24
Cotton, grey, 148 yds	17 02
" twilled, 8 yds	1 20
Cloth, scarlet, 2 yds	1 30
" hair, 26 yds	7 66

Staff—Con.	$ cts.
Uniform—Con.	
Cloth, Italian, 123 yds	51 05
Cheviot, black, 8½ yds	36 13
Caps, wardens, 1 only	7 50
" blue cloth, 3 only	9 00
Cap straps, 7 doz	3 15
Cuban oil, 6 cans	3 00
Crowns, gilt, 1 pair	60
Duck, 208 yds	80 99
Eyelets, black, 10 m	2 30
" common, 2 m	46
" russet, 1 m	23
" yellow, 1 m	50
Freize, 51½ yds	48 16
Farmers' satin, 221¾ yds	99 79
Felt, 11½ yds	2 83
Gloves, 12 pairs	15 00
Gaiter web, 2 rolls	60
Holland, glazed, 31 yds	4 96
" brown, 47 yds	7 13
Hats, cowboy, 4 doz	90 00
Hooks, 3 m	1 80
Hardash, 4 lbs	20 00
Ink, shoe, 4 gals	1 60
Khaki, 163 yds	188 87
Lamb skins, Persian, 1 doz	114 00
Leather, yellow calf, 259½ ft	76 29
" welt, 25 lbs	9 00
" Canada calf, 519 lbs	337 36
" sole, 500 lbs	117 50
" box calf, 23½ lbs	4 18
" willow calf, 292½ lbs	87 75
" Peaks, 14 doz	38 50
Leggings, Pig skin, 1 pair	4 00
Laces, boot, 3 gross	2 70
Lining, 399 yds	42 11
Mitts, 62 pairs	62 00
Machine, silk, 7 lbs	38 50
Paste, 6 doz	9 00
Russet cleaner, 9 gals	11 25
Rivets, steel, 95 lbs	7 60
Steel, shanks, 4 doz	40
Silesia, black, 121¼ yds	9 70
Silk, 1 1/16 lbs	9 69
Sweat bands, 9 doz	8 64
Serge, Khaki, waterproof, 3 yds	6 12
" " 106 yds	174 40
" blue, 274¼ yds	342 81
Straps, cap, 7 doz	3 15
Seal skins, hair, 8 only	44 00
Stars, gilt, 2 pairs	1 50
Tweed, 45 yds	18 00
Tacks, 10 lbs	1 50
Twist, button hole 3 lbs	13 50
Thread, steel ball, ½ gross	1 00
" hemp, 2 lbs	1 80
" shoe, 1 lb	1 40
" 12 lbs	9 60
" 8½ gross	29 30
Varnish, boot, 2 gals	1 50
Web, yellow, 24 yds	72
Wadding, 1,080 yds	43 20
Waterproof coat, 1 only	13 04
Wax, shoe, 15 lbs	1 50
Postage	77
Containers	2 05
Freight and express	15 34
	2,510 17

ST. VINCENT DE PAUL—*Continued.*

STAFF—Con.

Mess.

Apples, evaporated, 150 lbs	13 00
Butter, 1,655, lbs	430 30
Beef, 2,621 lbs	183 47
Baking powder, 1 doz	1 50
Baking soda, 35 lbs	1 05
Cheese, 1⅛ lbs	20
Coffee, 50 lbs	11 50
Carraway seed, 2 lbs	28
Currants, 60 lbs	4 20
Cornmeal, 10 lbs	20
Corn, 20 lbs	80
Cornstarch, 2 lbs	20
Essence of lemon, 1 lb	1 00
" vanilla, 1 lb	1 10
Essences, 1 doz	1 00
Eggs, 140 doz	34 97
Fish, cod, 400 lbs	26 00
" haddock, 308 lbs	24 16
Ginger, ground, 5 lbs	1 25
Lemons, 1 doz	25
Mustard, 12 lbs	2 16
Mutton, 35 lbs	2 45
Milk, 199⅓ gals	45 96
Quaker oats, 2 boxes	28
Orange meat, 1 box	15
Raisins, 114 lbs	7 58
Peel, 1 lb	20
Sugar, 300 lbs	14 60
Salt, 200 lbs	1 45
Salmon, 80 cans	11 16
Containers	35
Freight and express	4 94
	827 71

MAINTENANCE OF CONVICTS.

Rations.

Barley, pot, 1,000 lbs	30 00
Beans, white, 14,740 lbs	442 20
Beef, 59,187½ lbs	4,143 14
Bacon, 652 lbs	84 76
Fish, boneless, 200 lbs	13 00
Flour, 1,129½ bbls	5,463 20
Herrings, 27 bbls	148 50
Lard, 2,100 lbs	252 00
Milk, (Christmas Extras) 16 gals	3 68
Mutton, 521 lbs	36 47
Molasses, 2,291 gals	733 12
Oranges (Christmas Extras), 5 cases	18 25
Oats, rolled, 4,050 lbs	151 87
Pork, 64 bbls	1,280 00
Potatoes, 140,730 lbs	1,212 36
Pepper, 203 lbs	42 63
Rice, 3,000 lbs	96 00
Sugar, Muscavado, 7,359 lbs	275 96
Split peas, 2,000 lbs	60 00
Salt, coarse, 31,175 lbs	171 46
Tea, 1,524½ lbs	243 92
Vinegar, 200 gals	44 00
Yeast, 208 lbs	62 40
Freight and express	17 60
	15,026 52

MAINTENANCE OF CONVICTS.—Con.

Clothing.

Binding, stay, 10 gross	4 60
Buttons, pant, 38 gross	3 79
" white, 6 gross	78
" bone, 12 gross	1 56
" F. B. 1½ 12 gross	25
Boots, rubber, 2 pairs	8 40
Burrs, brass, 2 lbs	1 50
Buckles, 1 gross	84
Convict cloth, 1010¾ yds	899 56
Cotton, grey, 242½ yds	22 41
Canvas, 300 yds	21 75
Denim, 8,180 yds	1,729 78
Eyelets, 10 m	2 30
Flannellette, 70 yds	10 50
Gingham, 131½ yds	16 44
Galatea, 2,850 yds	356 24
Laces, porpoise, 15 gross	54 02
Leather, welt, 58 lbs	20 88
" buff, 329 ½ ft	46 13
" upper, 411½ lbs	172 83
" red calf, 38½ lbs	25 02
" wax, 167 lbs	108 55
" sheep skins, 134¼ lbs	60 41
" sole, 3,013 lbs	708 05
" split, 329 lbs	82 25
Moth balls, 25 lbs	1 00
Nails, iron, 70 lbs	3 50
Oil, neatsfoot, 10 gals	9 00
Pegs, 3 bushels	3 15
Rivets, 5 lbs	3 75
Straw hats, 25 doz	27 50
Sleeve lining, 300 yds	27 00
Tacks, 20 lbs	3 00
Thread, 5 gross	20 50
" linen, 67½ gross	51 75
" linen, 10 lbs	22 50
" shoe, 12 lbs	9 60
Underclothing, 140 doz	628 60
Wax, winter, 10 lbs	1 00
Yarn, 600 lbs	266 99
Baling	2 65
Freight and express	33 46
	5,473 79
Less refund of expenditure	1,497 36
	3,976 43

Hospital.

Book, medical, 1 only	5 00
Butter, 56 lbs	14 56
Biscuits, 6 lbs	60
Baking soda, 2 lbs	10
Bananas, 2 doz	40
Cheese, 11¼ lbs	2 04
Cotton, absorbent, 5 lbs	1 80
Cornstarch, 9 packages	90
Cocoa, 1 tin	10
Drugs and medicines	449 62
Expenses of surgeon Gaudet, Dorchester to St. V. de P. and return	39 55
Eggs, 45 doz	11 42
Flour, buckwheat, 5 lbs	20
Figs, 1 box	10
Ginger, ground, 1 lb	30
Ice bags, 2 only	2 00
Methylated spirits, 10 gals	6 75
Mustard, 24 lbs	4 32

ST. VINCENT DE PAUL—*Continued.*

MAINTENANBE OF CONVICTS—Con.	
Hospital—Con.	
Milk, 835 gals	192 13
Peel, 1 lb	10
Professional services re accident	5 00
Suspensory bandages, 1 doz	1 20
Syringe, 1 only	2 50
Spectacles, 6 pairs	6 00
Sherry, 3¼ gals	13 00
Truss, double, 1 only	2 50
Tobacco, 64½ lbs	29 03
Tomatoes, 2 cans	25
Tapioca, 2 lbs	20
Freight and express	2 70
	794 37
DISCHARGE EXPENSES.	
Freedom Suits and Allowances.	
Transportation and allowances (154)	816 95
Buttons, 48 gross	10 94
Buckles, pant, 5 gross	90
Braces, 12 doz	15 00
Cheese cloth, 239 yds	9 56
Canvas, 209 yds	15 15
Cotton, grey, 100 yds	11 50
Flannel, grey, 1,670 yds	183 71
Gloves, wool, 4½ doz	11 06
Handkerchiefs, 12 doz	4 80
Hooks steel, 3 m	1 35
Ink, burnishing, 4 gals	1 60
Leather, welt, 25 lbs	9 00
" sole, 500 lbs	117 50
Nails, iron, 10 lbs	50
Silesia, black, 100 yds	8 00
Sateen, black 399 yds	39 90
Tape, binding, 12 gross	5 52
Tacks, toe, 20 lbs	3 00
Thread, 3 gross	12 30
Thread, 14 lbs	14 10
Ties, 9 doz	9 00
Tweed, 1,154½ yds	311 72
Can, 1 only	50
Freight and express	30
	1,613 86
Transfers and Interments,	
Digging graves, 2 only	4 50
Transfer of body, 1 only	2 00
" prisoners to Kingston, 10 only	196 25
Freight and express	2 27
	205 02
WORKING EXPENSES.	
Heat, Light and Water.	
Bushings, 72 only	5 76
Clutches, 24 only	30 00
Electric lamps, 300 only	57 00
Carbon, brushes, 120 only	32 93
Carbons, solid, 1,000 only	28 13
Cordwood, 48½ cords	303 13
Coal, screenings 3,994,010 lbs	7,488 79
" stove, 57,120 lbs	177 07
" egg, 247,070 lbs	765 92

WORKING EXPENSES—Con.	
Heat, Light and Water—Con.	
Guards, 2 doz	2 40
Globes, inner, 100 only	15 00
Insulators, 25 only	42
Magnets, 6 only	33 00
Matches, 1 box	4 65
Rheostats, 6 only	22 50
Resistance wire, 5 coils	1 75
Voltmeter, Port standard, 1 only	9 75
Packing	10
Freight and express	17 26
	8,995 56
Maintenance of Buildings.	
Aluminum, 1 lb	1 75
Asbestos, 5 lbs	1 25
Air cell covering, 102⅛ ft	10 33
Adapters, 1 doz	30
Air tubes, 1 doz	2 00
Bronze, 1 lb	1 75
Bends, 39 only	14 60
Bushings, 25½ doz	9 88
Buckles, 10 doz	4 34
Brass, sheet, 24 lbs	5 52
" spring, 7 lbs	2 45
Blasting powder, 50 lbs	5 00
Bolts, tower, 1 doz	35
" carriage, 3,150 only	19 28
" mall, 23 only	13 80
" acme, 600 only	2 85
" stove, 200 only	65
Branches, Y, 2 only	1 44
Basin, overflow, 1 only	50
Bricks for stove, 1 set	3 00
Comp. blue glass, 4 sticks	1 44
Closet bowl, and flushometer, 1 only	16 30
Closet bowls, 3 only	17 70
Canada, plate, 10 boxes	28 50
Couplings, 11½ lbs	94
Couplings, 14 only	2 84
Colours, assorted, 2,007 lbs	183 85
Copper, 17 lbs	4 93
Cement, 175 bbls	323 75
Cocks, brass, stop, ½ doz	12 00
Charcoal, 55 bags	16 50
Copperine, 30½ lbs	6 10
Clutches, 1 doz	13 80
Carbon holders, 1 doz	6 72
Castings, 13 lbs	94
Disinfecting fluid, 44 gals	44 00
Elbows, 22½ doz	22 36
Emery cloth, 1½ Rms	10 00
Emery flour, 100 lbs	5 00
Fencing, 250 ft	50 00
Frame for range, 1 only	4 00
Flanges, 6 only	3 36
Grate for range, 1 only	1 25
Glass 1,100 ft	41 90
" 6 cases	17 10
Glue, 250 lbs	26 75
Gasolene, 10 gals	4 00
Heating cord, 25 ft	1 63
Hose, rubber, 50 ft	5 40
Hard oil finish, 5 gals	5 25
Hubs, 11 only	3 72
Hinges, blind, 4½ doz. sets	3 75
" spring, 3 doz	2 55
Iron, galvanized, 2,145 lbs	91 17
" Swede, 430 lbs	15 48

WORKING EXPENSES—Con.

Maintenance of Buildings.—Con.

Iron 1,206 lbs	28 95
" bar, 608 lbs	14 59
" band, 302 lbs	7 70
" round, 1,402 lbs	34 08
" sheet, 73 lbs	2 08
Inspection of scales	5 00
Junctions, 7 only	5 70
Japan, brown, 15 gals	7 05
Keys, 3 only	2 55
Lumber, fir, 1,360 ft	81 60
" pine, 43,104 ft	1,382 45
" spruce, 6,752 ft	148 54
Leather, horse hide, 29⅞ lbs	17 74
Lead, white and red, 4,050 lbs	264 00
Latches, 1 doz	2 18
Lye, 40 doz	18 00
Labour (night firing brick kiln) 9 nights	22 50
Lavatory plate, 1 only	14 00
Locks, pad, 7 doz	6 37
" door, 1 only	57
Manhole, gaskets, 2 only	3 00
Nipples, 4 only	10
Nozzle, gem, 1 only	33
Nuts, 232 lbs	17 04
Nails, finishing, 200 lbs	6 05
" moulding, 25 lbs	81
" wire, 25 kegs	62 50
" wire, 600 lbs	15 40
Offset, 4x6, 1 only	72
Oilers, cup, 6 only	2 70
Oil, D.B., 102 gals	66 30
Oil, raw linseed, 42 gals	26 04
Push blocks, 3 only	3 00
Paste, 6 lbs	1 02
Parts, for stove,	4 50
Plugs, 5 doz	1 15
Pumice stone, 10 lbs	70
Plaster paris, 2 bbls.	4 00
Plasters' hair, 52 lbs	2 08
Pipe, soil, 162 ft	24 85
" black, 472⅔ ft	27 64
" black, 6 lengths	7 54
" galvanized, 135 lbs	5 65
" galvanized, 516½ ft	54 96
" drain, 26 len	24 09
" iron, 2,515, lbs	45 27
" iron, 355$\frac{7}{12}$ ft	25 12
" lead, 52 lbs	3 09
Rubber, 21 lbs	3 47
Reducers, 2 only	5 10
Rivets, 20 m	3 96
Roach powder, ¼ doz	44
Receptacles, 2 doz	4 32
Radiator, 1 only	22 46
Side rods, 1 doz	4 80
Sockets, 2 doz	2 88
Steel, band, 32 lbs	1 36
" machine, 230 lbs	6 44
" cast, 504 lbs	39 06
" plate, 124 lbs	5 27
Screws, 18 sets	40
" cap, 4 doz	1 01
" rd. head, 40 gross	7 33
" 200 only	10 20
" flat head, 101 gross	21 40
Screens, 1 only	12 00
" wire, 7 only	10 15
Staples, wire, 200 lbs	5 00
Size, 129 lbs	2 91
Sand paper, 5 rms	38 91

WORKING EXPENSES—Con.

Maintenance of Building.—Con.

Soap, laundry, 9,300 lbs	372 00
Shade bend, 3 light cluster, 1 only	1 49
Shades, porc., 3 only	1 50
Switches, 1 doz	2 50
Sea grass, 10 lbs	2 50
Sleeves, 8 only	16 01
Solder, 35 lbs	7 70
Sink, enameled, 1 only	4 90
Spikes, 200 lbs	6 70
Shellac, 15 gals	47 00
Tape, Grimshaw, 15 lbs	11 80
Tees, 8^{1o} lbs	69
" 186 only	32 94
Tacks, 5 doz. papers	1 29
Tin, block, 113 lbs	39 55
" ingot, 119½ lbs	41 83
Turpentine, 125 gals	106 25
Traps, steam, 2 only	4 77
" running, 1 only	2 40
Toilet paper, 30 boxes	170 20
Telephone (internal), 1 only	11 00
Tanglefoot paper, 2 cartons	80
Tar, coal, 8 bbls	27 20
Tanks, closet, 3 only	8 25
Tubing, 50 ft	2 50
Tape, electric, 10 lbs	9 40
Unions, 72 only	19 71
Varnish, 15 gals	23 50
Valve discs, 36 only	2 52
Valves, 3 only	99
Whiting, 337 lbs	2 02
Wood, filler, 1 gal	1 35
Wick, cotton, 5 lbs	1 10
Wire, netting, 1 roll	5 50
" 522 ft	5 42
" R.C., 2,516 ft	21 82
" spring, 40 ft	1 00
" iron, 5 lbs	90
Waste, cotton, 111 lbs	6 66
Washers, 70 lbs	4 92
Welding, compound, 30 lbs	2 25
Postage	14
Containers	4 07
Freight and express	65 74
	4,908 97

Maintenance of Machinery.

Bibs, comp., 1 doz	6 93
Boiler, 1 only	105 35
Batteries, dry, 24 only	6 00
Blue glass, compound, 6 lbs	2 16
Cocks, ball, 2 only	2 44
Castings, 453 lbs	24 57
Discs for globe valves, 3 doz	3 75
Fire, clay, 16,090 lbs	72 40
Graphite, 10 lbs	1 20
Grease, 187 lbs	18 70
Glass gauges, 14 only	5 70
Grease cups, comp., 6 only	4 55
Inspection of boilers	40 00
Oil, boiled, 43 gals	27 95
" lard, 5 gals	4 00
" linseed, 41 gals	26 65
" machine, 499 gals	124 78
" cylinder, 326 gals	120 64
Pinion, 1 only	88
Pump, pinion, 1 only	19 50
Plates, dead, 2 only	10 00

Working Expenses—Con.	
Maintenance of Machinery.—Con.	
Packing, rainbow, 19⅛ lbs	14 40
Repairs to boiler	18 73
" stokers	364 00
Rubber bumpers, 6 only	1 50
Soda ash, 300 lbs	3 06
Syphons, steam gauge plates, 2 only	60
Valves, brass, 1 only	3 90
" gate, 4 only	18 88
" controlling, 2 only	70 00
" globe, 12 only	13 73
Welding compound, 60 lbs	4 20
Washers for gauge glass, 5 doz	93
Containers	95
Freight and express	13 47
	1,156 50
Chapels, Schools and Libraries.	
Braid, 10 yds	50
Books, mission, 5 doz	18 00
" prayer, 10 doz	36 00
" library, 182 only	100 00
" school, 1 doz	4 80
" dictionaries	17 28
Beads, 2 gross	14 40
Chalk, 5 boxes	1 82
Hosts, 1,800	3 80
Organists, salaries, 2 for 1 year	100 00
Oil, olive, 5 gals	7 00
Subs. to papers and magazines	26 00
Slate pencils, 3 boxes	51
Scapulers, 4 gross	6 00
Chalice gilded	8 00
Register 1909	2 25
Care of chapel and linen	54 98
Slates, 3 doz	3 24
Tapestry, 6 yrds	2 22
Containers	60
Freight and express	2 25
	409 65
Office Expenses.	
Subscription to newspapers, 8 only	18 50
" detective	1 00
Stationery	417 23
Printing	252 67
Premium on Officers' Bonds	24 00
Repairs to typewriter	9 30
" numbering machine	1 25
" dating stamp	2 50
Telephone rent	33 00
" connections	59 03
Telegrams	9 65
Postage	117 68
Freight and express	19 71
	965 52
Industries.	
Farm.	
Buckles, double, 2 gross	2 50
" harness, 2 gross	1 68
Barley, 2,400 lbs	53 75

Industries—Con.	
Farm—Con.	
Buckwheat, 4,920 lbs	72 78
Bran, 2,000 lbs	22 00
Clippers, horse, 1 pair	1 42
Examination of horses, 2 only	4 00
Felt, yellow, 59½ lbs	23 80
Feed, Eureka, 65 tons	1,625 00
Fencing, wire, 80 rods	47 20
Forks, manure, 6 only	3 75
" pully, 1 only	14 00
Harness guide, 1 only	2 50
Handles, fork, 3 doz	3 73
Horseshoes, 200 lbs	7 00
" nails, 75 lbs	7 22
Hay seed, 125 lbs	13 30
Horses, 2 only	460 00
Locks, padlock, ⅓ doz	1 83
Linseed, 30 lbs	1 05
Leather, harness, 118 lbs	29 50
Oat shell, 50 lbs	50
Oats, 1,200 bush	573 00
" 40,560 lbs	621 80
Pease, 26 bush	32 50
Potatoes, 29,705 lbs	295 78
Paris green, 100 lbs	25 00
Parts for machines	20 07
Professional services of veterinary, 2 visits	12 00
Plows, 2 only	22 00
" parts for	4 20
Soap, harness, 1 doz	5 00
Steel stamp, 1 only	1 00
Straw, 16,200 lbs	49 16
Staples, bright, 200 lbs	5 30
Steel toe calk, 51 lbs	1 35
Shovels, potato, 3 only	4 00
Seeds,	15 28
Tar, pine, 2 gals	80
Twine, 100 lbs	11 00
Wire, fence, 500 lbs	14 50
Postage,	11
Containers, 46 bags	6 50
Freight and express	6 85
	4,125 71
Trade Shops.	
Augers, 2 sets	4 58
Awls, 40 only	17 12
Awls, stitching, 1 gross	1 65
Aluminum, 1 lb	85
Acid, oxalic, 2 lbs	20
" muriatic, 120 lbs	2 70
Axes, 15 only	5 13
Beeswax, 20 lbs	9 00
Brushes, steel, 1 doz	4 40
" marking, 2 only	11
" camel hair, 18 only	2 62
" artists, 2 only	07
" Kalsomine, 1 doz	6 00
" paint, 15 doz	55 92
Brads, cutting, 3 only	9 60
Bristles, 1 lb	6 50
Brass, scrap, 500 lbs	65 00
Blades, knife, 1 doz	1 25
Bellows, 1 only	15 00
Bits, 6 only	33
Bolts, carriage, 100 only	90
Braces, 5 only	10 00
Buckles, 1 gross	1 20
Bronze, 1 lb	75

INDUSTRIES—Con. *Trade Shops*—Con.		
Canvas, 100 yds	14	40
Chisels, 14 only	4	76
Coal, blacksmiths, 165,600 lbs	425	75
Charcoal, 31 bags	9	30
Castoffs, 6 only		60
Cord, bookbinders, 7 lbs	6	20
" upholstering, 5 lbs		83
Carbone, 1 gal	2	04
Colours, 90 lbs	16	70
Castings, 337 lbs	13	48
Clamps, 7", 8 only	4	23
Carborundum stone, 1 only	1	80
Chalk, tailors, 6 boxes	1	92
Cloth, enamelled, 12 yds	3	00
Cordwood, tamarac, 144 cords	756	00
Castors, 24 sets	3	84
Cap for plane, 1 only		15
Dies, reece, 2 pairs	11	48
" bolt, 4 sets	8	57
" pipe, 8 sets	10	72
" stock, 1 only	4	00
" tap and wrench, 1 set	4	50
Drills, 8 only	13	92
" stock, 1 doz		66
" twist, 1 doz	1	24
" morse, 9 only	9	84
" S.S., 4 doz	2	40
" 1 set	62	40
Dressing, braid, 1 gal	1	50
Diamond glaziers, 1 only	5	00
Eyelets, screw ends, 2 only		60
Emery stone, 1 only		90
Emery, flour, 50 lbs	2	50
Emery, wheels, 10 only	54	40
Forge, portable, 1 only	8	90
Files, 41 1/12 doz	91	27
" cant saw, 4 7/12 doz	12	41
" smooth, 2 doz	4	20
" mill saw, 5 doz	10	50
" bastard, 12½ doz	39	78
" pit saw, 1 doz	1	35
Gauges, 3 only	3	40
Glue, 126 lbs	6	90
Gloves, rubber, 1 pair	3	24
Glasses, level, 1 doz		29
Glass, star, 2 cases	7	50
Gold leaf, 6 books	3	70
Gutta Percha, ¼ lb		69
Grindstone, 510 lbs	6	03
Graining combs, 1 set		65
German, scraper, 2 only		22
Gimp, black, 50 yds	1	75
" brown, 1 piece		50
Gasolene, 5 gals	2	00
Heating coils, 9 sets	43	50
Hoes, mortar, 1 doz	6	00
Handles, bureau, 2 doz	1	80
" shovel, 2 doz	5	00
" knife, 2 pairs	1	60
" hickory, 72⅛ doz	51	75
Hair, seal skins, 18 skins	99	00
Hooks, wax machine, 1 doz		75
Hinges, brass, 1 doz		19
Iron, 54 lbs	1	62
" band, 57 lbs	1	45
" bar, 733 lbs	17	59
Jack screws, 2 only	8	41
Knobs, 1½ doz		36
Knives, dean, 1 only		70
" draw, 1 only		70
" 2 only		94

INDUSTRIES—Con. *Trade Shops*—Con.		
Knives sharpened, 1 only		50
Leather, sheep skins, 1 doz	20	75
" box calf, 89 ft	17	74
" Dongola, 20¾ lbs	5	81
" Dongola, 55¾ ft	16	02
" sole, 500 lbs	117	50
" Roan skin, 24 skins	41	65
Lining, 116 yds	21	47
Labour, night fireman, 9 nights	22	50
Lasts, 15 pairs	6	75
Locks, drawer, 3 doz	5	50
" yale, 1 doz	1	00
" cupboard, 1⅓ doz	3	25
" mortice, 1 doz	3	25
" desk, ½ doz	1	25
Lumber ash, 1,049 ft	33	57
" elm, 7,598 ft	243	14
" basswood, 4,000 ft	120	00
" oak, 6,000 ft	450	00
Moss, 338 lbs	27	04
Mallets, 60 only	12	00
Machine tap, 1 only	1	20
Mason's lines, 3¾ lbs	1	24
Nails, moulding, 5 lbs		65
Nipples, 3 pairs	2	81
Needles, 432 papers	10	80
" 5 gross	8	95
" 1 package		15
" 300 only	3	30
" stitching, 6 only		30
" saddlers, 8 papers		80
" upholsterers, 2 only		10
Oil, sewing machine, 1 gal	1	00
Oil, stone, soft, 1 lb		50
Pumice stone, 10 lbs		70
Punches, hollow, 1 set	11	04
" nail, 1 doz	1	10
Pincers, 3 pairs	1	25
Plane, irons, 2 only		60
Planes, 10 only	25	83
" jack, 2 only	3	52
" fore, 1 only	2	75
" joiner, 1 only	3	70
" block, 2 only	1	20
" smooth, 1 only	2	13
Plate and chuck, 1 only	30	00
Pan, circle, 1 only		50
Paper, blue print, 9 rolls	47	05
" drafting, 1 roll	17	00
Pencils, carpenters', 7 doz	1	54
" lumbermans', 2 doz		50
Parts of sewing machine	2	81
Pliers, 1 pair		75
Pulls, drawer, 2 doz	1	80
Rubber, cement, 12 cans	3	90
Rasps, 1 doz	2	35
Rules, 2 doz	2	75
" architects, 1 only		85
Repairs to sewing machines (5)	35	80
Rope, 319 lbs	36	18
Rice root, 100 lbs	26	00
Springs, chair, 2 doz		66
" sofa, 2 doz		67
Snips, 3 pairs	4	50
Sponges, 36 only	4	32
Sewing machines, 3 only	113	50
Solder, silver, 1 doz	1	15
Squares, bevel, 1 only		20
" try, 3 only	1	09
" bench, 1 only		35
" carpenters, 1 only	1	10

ST. VINCENT DE PAUL—*Continued.*

INDUSTRIES—Con.	
Trade Shops—Con.	
Sea grass, 1 bale	3 83
" 232 lbs	5 81
Socket sleeves, 3 only	4 68
Solder pots, 3 only	1 50
Steel, oct., 106 lbs	7 98
" cast, 404 lbs	31 31
" bar, 257 lbs	20 78
" tire, 83 lbs	1 99
" conq., 406 lbs	31 47
Screw eyes, 3 gross	92
Steel shanks, 1 doz	15
Spokeshaves, 3 only	90
Sand, moulding, 3 bbls	3 00
Saws, assorted, 62 only	34 90
" band, 80 ft	7 65
Services of Brick Instructor, 2 seasons	200 00
Sand paper, 5½ rms	24 38
Scissors, bent, 1 doz	12 00
Shovels, 4 doz	48 00
Shears, 1 pair	75
Shellac, ¼ gal	1 25
Subs. to clayworker	2 00
" Sartorial Art Journal	12 00
Tape measures, 2 doz	74
Tape, line, metallic, 1 only	2 50
Tuyer irons, 1 only	75
Thread, linen, 2 lbs	4 50
" bookbinders', 3 lbs	7 50
" white spools, 1 gross	4 10
Twine, 4½ lbs	90
Tampico, 50 lbs	12 50
Tar brush heads, ¼ doz	1 41
Taps, reece, 6 only	2 43
" pipe, 1 only	25
Tin, 6 boxes	46 50
Tacks, gimp, 1 lb	55
Tracing cloth, 1 roll	5 25
Trees, 10" wood, 2 only	60
Vise, 2 only	5 25
Varnish, bookbinders', 1 bottle	2 85
" 12 gals	22 50
Winch, 1 only	60 00
Wrenches, stilson, 3 only	3 89
" monkey, 5 only	4 25
Wire, screen, 600 lbs	10 50
Postage,	45
Containers	3 80
Freight and express	44 36
	4,426 36

PRISON EQUIPMENT.	
Machinery.	
Standing press	15 00
Furnishings.	
Beds, iron, 50 only	241 86
Basin stopper and chain, 1 only	15
Bureau handles, 2 doz	1 80
Binding, black rubber, 50 yds	1 13
" red gimp, 35 yds	1 75
Blankets, 450 lbs	193 50
Carpets 4 yds	83
Castors, 18 sets	5 60
Chair nails, 6 m	3 00
Chair fixtures, 1 only	1 25
Canvas, 1 strip	62

PRISON EQUIPMENT.—Con.	
Furnishings.—Con.	
Duck, black, 12 yds	4 80
Felt, 900 sq. ft	49 50
Forfar linen, 2,174½ yds	480 35
Locks, cupboard, yale, 10 only	2 46
Mat, 1 only	90
Mirror, 1 only	4 00
Oil cloth, 38¾ yds	14 03
Palm leaves, 2,079 lbs	83 16
Soap dish, enamelled, 1 only	10
Sofa, springs, 5 doz	2 50
Soap, castile, 2,600 lbs	221 00
" toilet, 4 doz	9 60
" shaving, 40 lbs	13 30
Tacks, gimp, 1 box	1 20
Towels, 3 doz	3 50
Ticking, 211 yds	39 04
Webbing, jute, 72 yds	1 65
Postage,	23
Packing	1 25
Freight and express	40 57
	1,424 63
Utensils and Vehicles.	
Basin, granite, 2 only	70
Bolts, tire, 400 only	1 51
Butchers' knives, 4 only	4 00
Bean pot, 1 only	40
Butchers' block, 2 only	8 00
Brooms, 25 doz	56 25
Bellows, hand, 1 only	75
Bath bricks, 8 doz	2 80
Brushes, 15 only	7 15
Cock, brass, 1 only	55
Cups and saucers, 2 doz	2 00
Combs, dressing, 1 doz	1 18
" fine, 1 doz	1 90
Clippers, toilet, 2 pairs	4 00
" springs, 2 doz	2 30
Colours, 65 lbs	9 40
Duster, feather, 1 only	1 00
Fly paper, 4 cartons	1 60
Glasses, 1 doz	1 00
Gate, plain 1 only	55
Iron, hoop, 220 lbs	6 77
" Russian, 63 lbs	7 25
" galvanized, 2,284 lbs	91 88
Knives, 1 doz	98
Lye, 48 tins	21 60
Lead, black, 1 box	1 60
Lumber, elm, 6,000 ft	192 00
Pearline, 600 packages	22 80
" 6 gross	22 80
Padlocks, ¼ doz	38
Pan, stew, 1 only	30
" fry, 1 only	23
Pot, iron, 6 gals., 1 only	2 38
Pumice stone, 1 lb	08
Pivot for engine clock, 1 only	1 00
Potato fork, 1 only	1 25
Razor, hone, 1 only	88
Razors, 18 only	15 00
Repairs to clock,	2 00
Spoons, table, 22 doz	5 87
" tea, 1 doz	25
Scissors, 5 pairs	3 07
Shovels, snow, 5 doz	22 50
Steel, tire, 57 lbs	1 11
Tampico, 44 lbs	11 00

ST. VINCENT DE PAUL—*Continued.*

PRISON EQUIPMENT.—Con.			PRISON EQUIPMENT.—Con.		
Utensils and Vehicles.			*Lands, Buildings and Walls.*		
Tin plate, 20 boxes	136	25	Traps, hand hole, 4 only	9	96
Tin, galvanized, 228 lbs	22	23	Containers		90
Whisks, 1 doz	1	25	Freight and express	7	58
Wire, 777 lbs	18	97			
Water jugs, 2 only	1	26		2,312	00
Wheels, 1 set	11	80			
Postage		09			
Freight and express	11	48	MISCELLANEOUS.		
	745	35	*Advertising and travel.*		
Lands, Buildings and Walls.			Advertising	237	84
			Travel, penitentiary officers	200	80
Bolts, tower, 6 doz	5	10	" departmental officers	273	57
Cordwood, tamarac, 86¼ cords	452	81		712	21
" slabs, 53½ cords	240	75			
Fence pickets, 400 only	32	00	*Special.*		
Hinges, T., 208 lbs	15	03			
Iron, assorted, 30,322 lbs	741	38	Rent of railway siding	11	54
Junctions, 2 only	2	28	Reward for finding rifle	2	00
Lumber, hemlock, 15,000 ft	270	00	Rifle and revolver competion (prizes)	50	00
" spruce, 8,220 ft	224	25	Membership of warden in Prison Association, 2 yrs	10	00
Lavatory, 1 only	8	50	Services of auctioneer	5	00
Pipe, 1 len		96		78	54
" drain, 30 ft	6	30			
Parts for closet,	21	20			
Railway ties, 600 only	240	00			
Saw dust, 100 bags	3	00		113,169	27
Sand, 50 tons	30	00			

ST. VINCENT DE PAUL.

Recapitulation.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	57,939 19	
Uniforms and mess	3,337 88	
		61,277 07
Maintenance of Convicts—		
Rations	15,026 52	
Clothing and medicines	4,770 80	
		19,797 32
Discharge Expenses—		
Freedom suits and allowances	1,613 86	
Transfer and interment	205 02	
		1,818 88
Working Expenses—		
Heat, light and water	8,995 56	
Maintenance of buildings and machinery	6,065 47	
Chapels, schools and library	409 65	
Office expenses	965 52	
		16,436 20
Industries—		
Farm	4,125 71	
Trade shops	4,426 36	
		8,552 07
Prison Equipment—		
Machinery	15 00	
Furnishings	1,424 63	
Utensils and vehicles	745 35	
Land, buildings and walls	2,312 00	
		4,496 98
Miscellaneous—		
Advertising and travel	712 21	
Special	78 54	
		790 75
Total		113,169 27

STAFF.	
Salaries.	
General.	
Warden, 1, 12 mos	2,200 00
Surgeon, 1, 12 mos	1,500 00
Accountant, 1, 12 mos	1,200 00
Chaplains, 2, 12 mos., @ $1,000	2,000 00
Storekeeper, etc., 1, 12 mos.,	800 00
Steward, etc., 1, 12 mos	900 00
Engineer, 1, 12 mos	1,000 00
Hospital overseer, etc., 12 mos	900 00
Matron, 1, 12 mos	600 00
Assistant matron, 1, 12 mos	450 00
Messenger, 1, 12 mos	600 00
Fireman, 1, 12 mos	600 00
Industrial.	
Trade instructors, 8, 12 mos. @ $800	6,400 00
Stable guards, 2, 12 mos., $600	1,200 00
Police.	
Deputy warden, 1, 12 mos	1,500 00
Chief keeper, 1, 12 mos	900 00
" watchman, 1, 12 mos	800 00
Watchman, 2, 12 mos., $650	1,300 00
Keepers, 4, 12 mos., $700	2,800 00
Guards, 18, 12 mos., $600	10,800 00
2, broken periods	511 67
Temporary offices	408 84
	39,370 51
Retiring Gratuities.	
Guard, John Hebert	184 30
Uniforms.	
Anti squeak, 24 sheets	2 88
Brushes, button, 4½ doz	10 63
Badges, 1 pair	75
Buckles, pant, 1 gross	85
Braid, 9 yds	54
Blacking, 3 doz	3 00
Buttons, gilt, vest, 3 gross	6 30
" " coat, 5 gross	16 50
Buckram, 3½ yds	2 38
Crowns, 2 pairs	1 20
Cap straps, 4 doz	1 71
" peaks, 4 doz	11 40
Canvas, 200 yds	32 00
Caps, hair, seal, 9 only	27 88
Duck, 92 yds	46 00
Dress goods (matrons) 12 yds	9 00
Electric Silician, 4½ doz	5 30
Frieze, 55½ yds	51 66
Gloves, 31 pairs	32 00
Galatea, 647½ yds	80 94
Holland, 96 yds	16 80
Italian cloth, 142½ yds	71 26
Leather, welt, 2 sides	11 00
" sole, 500 lbs	117 50
Lining, 193½ yds	29 64
Mitts, 17 pairs	17 00
Machine, silk, 2 lbs	10 00
Stars, 2 pairs	1 50
Serge, blue, 160 yds	200 00
" Khaki, 179½ yds	195 66
Sweat bands, 4 doz	2 85
Tunic cloth, 2⅝ yds	8 53

STAFF—Con.	
Uniforms—Con.	
Uppers, 100 pairs	150 80
Wire for caps, 50 yds	75
Postage	02
Freight and express	10 93
	1,187 16
Officers' Mess.	
Apples, evaporated, 50 lbs	4 50
Baking powder, 1 doz	5 00
Butter, 671 lbs	174 20
Coffee, 15 lbs	4 20
Eggs, 10 doz	2 30
Ginger, 10 lbs	2 10
Lard, 300 lbs	36 00
Mustard, 10 lbs	2 20
Onions, 285 lbs	9 47
" 1 case	3 25
Raisins, 50 lbs	3 75
Sugar, granulated, 969 lbs	48 45
	295 42
MAINTENANCE OF CONVICTS.	
Rations.	
Beef, 44,163 lbs	2,981 70
Beans, 6,050 lbs	211 75
Barley, pot, 392 lbs	13 72
Butter (Christmas Extras), 90 lbs	22 50
Apples (Christmas Extras), 2 bbls	6 00
Coffee (Christmas Extras), 15 lbs	4 20
Cornmeal, 3,924 lbs	68 60
Flour, 677½ bbls	3366 65
Fish (boneless), 5,200 lbs	208 00
Geese (Christmas Extras), 2 only	2 70
Herring, 15 bbls	75 00
Lemon peel (Christmas Extras), 5 lbs	60
Orange peel (Christmas Extras), 5 lbs	60
Lemons (Christmas Extras), 3 doz	75
Lemon extract (Christmas Extras) bottle	35
Mutton, 584 lbs	39 43
Molasses, 905 gals	280 55
Nutmegs (Christmas Extras), ½ lb	20
Onions, 1,006 lbs	25 48
Oatmeal, 1,980 lbs	76 00
Pease, split, 1,568 lbs	50 96
Pepper, 70 lbs	14 00
Rice, 672 lbs	21 84
Rolled oats, 8,720 lbs	348 80
Raisins (Christmas Extras), 112 lbs	8 40
Savory (Christmas Extras), ½ lbs	40
Sugar, 7,233 lbs	325 49
Salt, 8,294 lbs	65 64
Tea, 930 lbs	148 80
Vinegar, 31 gals	7 75
Yeast, 260 lbs	91 00
Freight and express	27 17
	8,495 03
Clothing.	
Burrs, copper, 1 lb	38
Buttons, pant, 1 gross	1 00

MAINTENANCE OF CONVICTS—Con.

Clothing—Con.

Buttons, bone, 4 gross	4 00
Checked cloth, 735¼ yds	654 38
Cotton, grey, 60 yds	3 15
Cottonade, 120½ yds	21 64
Denim, 232 yds	49 30
Flannel, 126 yds	13 86
Galatea, 544½ yds	68 06
Hats, straw, 100 only	13 00
Handkerchiefs, 50 doz	20 50
Laces, leather, 5½ gross	11 00
Leather, sole, 1,543 lbs	330 85
" upper, 368 lbs	147 20
Larrigans, 1 doz	18 00
Neatsfoot, oil, 10 gals	9 50
Nails, shoe, 50 lbs	3 00
" Hungarian, 75 lbs	6 00
" zinc, 50 lbs	6 50
" sharp point, 25 lbs	1 50
Rivets, copper, 1 lb	32
" shoe, 25 lbs	1 88
Shirting, 543 yds	67 88
Underwear, 80 doz	361 80
Yarn, 400 lbs	178 00
Containers	50
Freight and express	19 40
	2,012 60

HOSPITAL.

Biscuits, soda, 39½ lbs	2 58
" pilot, 61 lbs	3 20
Drugs and medicines	566 25
Elastic for artificial leg, 4 yds	3 00
Eggs, 15½ doz	2 78
Trusses, 2 only	92
Towels, bath, 1 doz	2 85
Postage	10
Express	20
	581 88

DISCHARGE EXPENSES.

Freedom Suits and Allowances.

Transportation and allowances, 111	902 95
Buttons, 25 gross	7 82
Braces, 10 doz	12 50
Buckles, 1 gross	85
Binding, 4½ yds	18
Canvas, 100 yds	7 50
Cotton, 32 yds	3 52
Coats, women's, 3 only	9 40
Dress goods, 12 yds	3 00
Farmer's satin, 109 yds	10 90
Gloves, women's, 2 pairs	60
Hats, 10 doz	47 50
" women's	3 25
Handkerchiefs, women's, 2 only	20
" " 15 doz	8 20
Leather, sole, 100 lbs	21 00
Lining, 242½ yds	22 60
Outfit for female, 1 only	5 24
Shirts, 10 doz	32 50
Thread, linen, 6 lbs	11 10
Tweed, 812 yds	219 59
Ties, 11 doz	11 00
Vest, women's, 2 only	60
Underclothing, 10 doz	47 50
	1,389 50

WORKING EXPENSES.

Heat, Light and Water.

Coal, 1,305$\frac{9}{20}$ tons	5,118 50
Coal oil, 665 gals	118 35
Electric current	1,494 81
Globes, lantern, 2 doz	1 17
Lamps, electric, 120 only	21 84
Freight and express	9 78
	6,764 45

Maintenance of Buildings.

Brushes, tar, 1 doz	5 08
" Kalso. 2 doz	10 15
Blocks, 1 only	75
Brass, 6¾ lbs	2 03
Bushings, 1 doz	30
Bibbs, compound, 1 doz	6 65
Chuck, 1 only	6 00
Chlor. of lime, 50 lbs	2 50
Castings, 37½ lbs	2 25
Colours, 105 lbs	13 40
" 108½ gals	182 60
Elbows, C. I., 1 doz	48
Hinges, 7½ doz. pairs	5 69
Hair, 567 lbs	17$\frac{5}{6}$01
Hose jacket, 30 ft	4$\frac{7}{6}$95
Glass, 20 cases	73$\frac{7}{6}$00
Iron, galvanized, 422 lbs	19 83
" sheet, 816 lbs	14$\frac{7}{6}$28
" S. P., 567 lbs	13 04
" bar, 468 lbs	12 40
Knobs, rim, 2 gross	2 20
Lead, white, 1,500 lbs	93$\frac{7}{6}$75
" red, 25 lbs	1 63
Lining for furnace, 1 set	60
Locks 2½ doz	15 70
Lime, 75 casks	109 50
Leather, lace, 5½ lbs	3 44
Nails, wire, 15 kegs	35 25
" tinned, 100 lbs	9 20
Oil, raw, 40$\frac{5}{6}$ gals	25 35
Powder, emery, 10 lbs	50
Polish, stove, 10 doz	1 50
" automatic, 100 lbs	20 00
Rubber, sheet, 15 lbs	4 50
Roach, powder, 20 lbs	10 00
Plaster, 12 bbls	21 60
Putty, 412½ lbs	4 89
Sapolio, 1 box	3 00
Steel, 711 lbs	58 66
Stopcocks, 3 only	2 60
Screws, 39 gross	12 01
Sal ammoniac, 70 packages	7 00
Sal soda, 2,240 lbs	22 40
Soap, 2,507 lbs	111 64
Tar, 6 casks	24 00
Toilet paper, 5 cases	31 67
Unions, 1 doz	5 04
Wall paper, 384 rolls	67 56
Wire, carbon, 496 lbs	11 13
" fence, 99 lbs	2 42
Whiting, 336 lbs	3 02
Wire cloth, 4 yds	96
Valve seats, 7 doz	3 48
Zincs, 3 doz	3 60
Duty	8 98
Telephone messages	50
Freight and express	44 95
	1,176 62

DORCHESTER—*Continued.*

WORKING EXPENSES—Con.

Maintenance of Machinery.

Asbestos wicking, 5 lbs	1 50
Boiler inspection	40 00
Cocks, pet, 1 only	61
" compound, 18 only	10 50
Oil, machine, 85½ gals	25 65
Pump and receiver, 1 only	235 00
Tube cleaner, 1 only	1 65
Rings, 4 only	1 60
Steam trap, 1 only	12 00
Valves, check, 1 only	3 75
Piston, 1 only	1 35
Parts for furnace	11 24
	344 85

Chapels, Schools and Library.

Altar bread	1 50
Books, prayer, R.C., 5 doz	26 00
" testaments, 3 doz	6 00
" catechisms, 2 doz	1 20
Candles, wax, 20 lbs	9 00
Incense, 1 box	1 75
" braise, 1 box	4 00
Lustre, black, 18 yds	9 90
Music, 4 pieces	9 49
Organists' salaries, 2 for 1 year	100 00
Repairs to font	11 10
Subs. to magazines, 6 only	12 25
Wine, sacramental, 1 gal	3 00
Freight and express	1 75
	196 94

Office Expenses.

Stationery	101 61
Printing	295 81
Postage	95 00
Subs. to papers, 7 papers	24 98
Premiums on officers' bonds	24 00
Telephone and connections	73 12
Telegrams	5 76
Freight	14 56
	634 84

INDUSTRIES.

Farm.

Axes, 1 doz	7 00
Bran, 1 ton	25 50
Bull, shorthorn, 1 only	100 00
Book, veterinary, 1 only	2 00
Baskets, 2 doz	4 00
Brushes, dandy, 2 doz	7 68
Boar, pig, 1 only	20 00
Carriage, boot, 1 only	3 25
Cornmeal, 4,410 lbs	77 18
Curry combs, 1 doz	1 79
Even levers complete with loops, 2 only	15 00
Fertilizer, 5 tons	147 00
Forks, 5 doz	31 89
Cattle (29), 29,795 lbs	1,193 05
Hoes, field, 1 doz	5 50
Horse, rugs, 6 only	17 50
Handles, spade, 1 doz	1 25

INDUSTRIES.—Con.

Farm—Con.

Harness, double, 1 set	49 00
Horses, 2 only	440 00
Horse shoe, nails, 1 box	2 50
" 100 lbs	10 75
Hose, 50 ft	13 00
" fittings	2 00
Leather, harness, 106 lbs	33 92
Medicine	27 71
Mowing machine, 1 only	48 00
Oats, seed, 500 bush	282 00
Ox bows, 3 pairs	4 20
Potatoes, 201 bush	102 56
Parts of machines	16 81
Pot, 50 gals, 1 only	6 40
Rakes, hay, 1 doz	1 94
Seeds, 855 lbs	128 30
Scythe stones, 3 doz	1 28
Snaiths, ½ doz	4 20
Shears, border, 1 pair	1 25
Twine, Manilla, 150 lbs	16 90
Tar, 9 cans	90
Telephone messages	1 10
Containers	10 97
Freight and express	41 86
	2,906 69

Trade Shops.

Augers, 2 only	97
Awls, strip, 2 only	50
Bolts, 100 car	68
Bristles, ½ lb	81
Buttons, pant, 2 gross	2 00
Beeswax, 5 lbs	2 25
Boot trees, 1 set	5 50
Bobbin cases, 2 only	2 00
Cotton, 785¾ yds	79 50
Crimps, 3 pairs	1 50
Canvas, 100 yds	7 50
Coal, smiths', 26¾ tons	80 25
Denim, 57 yds	11 40
Files, 5 doz	7 33
Fuse, 1 coil	65
Gasolene, 79½ gals	20 28
Hooks, 2 boxes	1 30
Hook and eye, set, 1 only	1 95
Heel shoe blades, ½ doz	2 00
Handles, peg, awl, 2 doz	1 20
Iron, bar, 1,484 lbs	39 47
" flat, 1,205 lbs	32 07
" galvanized, 4,605 lbs	216 44
Japan, brown, 5 gals	3 60
Knife sharpeners, ½ doz	1 00
Knives, 2 doz	3 50
Kettle ears, 4 gross	3 32
Locks, chest, 6 only	3 00
Leather, cement, 6 only	50
" sole, 196 lbs	41 16
" wax, 126 lbs	50 40
" sheepskins, 50 lbs	15 00
Oil, 10 gals	17 50
" boiled, 39½ gals	25 57
Powder, blasting, 1 keg	2 75
Plane, irons, 3 doz	6 85
Rivets, tinned, 12 m	1 92
" stove pipe, 12 m	1 20
Subs. to Sartorial Art Journal, 1 year	12 00
Screw driver, 1 only	2 16
Shears, 1 pair	1 30
Screws, 6 gross	1 20

DORCHESTER—*Continued.*

INDUSTRIES—Con.

Trade Shops—Con.

Saws, hand, ½ doz	8 55
" hack, 1 doz	55
Sewing machine fittings	3 72
Turpentine, 43½ gals	29 47
Thread, spools, 13 gross	53 30
" linen, 25 lbs	56 25
Tape, steel, 1 only	4 67
Tin, block, 57 lbs	19 95
Wadding, 1 bale	5 25
Wire, 249½ lbs	6 98
" iron, 53 lbs	1 48
Containers	4 31
Freight and express	40 92
	946 88

PRISON EQUIPMENT.

Furnishings.

Blankets, 337½ lbs	145 13
Basin, wash, 1 only	40
Blind, 1 only	50
Chair, office 1 only	6 50
Crash, 748 yds	184 62
Forfar, linen, 539 yds	167 09
Soap, castile, 642 lbs	60 99
Steel, hoop, 1,022 lbs	25 04
Freight and express	6 92
	596 69

Utensils and Vehicles.

Brush, B 4½, 1 only	90
Baskets, bushel, 4 only	3 20
Brooms, 20 doz	45 00
Barrow, wheel, steel	7 92
Cartridges, 1,000 only	33 25
Clippers, hair, 1 pair	3 06
Dishes, vegetable, 2 only	1 00
Faucet, 1 only	62
Handles, shovel, 2 doz	6 09
Hones, ½ doz	2 28
Kettle ears, 1 gross	72
Knives, butcher's, ½ doz	1 48
Knives and forks, 1 doz	2 50
Mowers, lawn, 2 only	10 00
Parts for rifles	2 28
Rifles, 6 only	69 96
Raisin seeder, 1 only	60
Soup plates, granite, 2 doz	2 50
Steel, hoop, 116 lbs	3 60
" drill, 140 lbs	11 55
Shovels, assorted, 4 doz	42 62
Saws, meat, 1 only	1 56
Tubs, wash, 2 only	2 00
Thermometers, 2 only	1 24
" dairy, 6 only	45
Tin, 4 boxes	24 00
Custom's duty	26 70
Postage	07
Freight and express	4 84
	311 99

Lands, Buildings and Walls.

Bricks, 5 m	45 00
Blue prints	4 23
Batteries, C. G., 25only	15 00
Baize, green, 4 yds	3 40

PRISON EQUIPMENT—Con.

Lands, Buildings and Walls—Con.

Bolts, ½ doz	44
Barrier, doors, steel, 10 only	579 09
Castings, 680 lbs	19 64
Colours, 45½ gals	79 62
Couplings, 12 only	2 00
Cement, 355 bbls	765 50
Cocks, 12 only	11 80
Electrical equipment installation	478 68
Electrician's services	202 30
Elbows, 54 only	2 97
Fasteners, sash, 24 only	2 47
Fencing, 244 sq. ft	105 30
Glass, 4 cases	12 00
Fuse, 4 coils	2 60
Hubs, 4	1 20
Hoppers, enamelled, 14 only	52 50
Hinges, spring, 3 pairs	88
Lead, sheet, 649 lbs	42 19
Iron, bar, 676 lbs	18 44
" galvanized, 4,944 lbs	232 84
Latches, rim, 3 only	1 50
Lime, 150 casks	219 00
Lumber, spruce, 24,179 ft	400 39
" pine, 2,000 ft	50 00
" hardwood, 321 ft	7 06
" planed, 8,000 ft	244 39
Legal services re marsh land	118 40
Surveying, marsh land	8 50
"	7 60
Marsh land, 37 acres, 1 rd., 16 poles	2,988 00
Nails, wire, 17 kegs	43 90
Powder, blasting, 5 kegs	13 75
Pulleys, sash, 5 doz	1 65
Posts, cedar, 200 only	26 00
Pipe, soil, 17 len	40 98
" 6", 102½ ft	10 94
" iron, 362½ ft	21 87
" 670 ft	27 47
Putty, 412½ lbs	4 89
Rope, Manilla, 238 lbs	28 56
Rosettes, 48 only	5 13
Sand, 79 loads	15 80
Screws, 100 only	1 57
" 27 gross	7 78
Tees, 6 only	1 00
Tubing, 100 ft	5 00
Wire, R.C., 2,150 ft	30 05
" wpf., 25½ lbs	4 59
Travel expenses	2 20
Freight and express	78 00
	7,096 06

MISCELLANEOUS.

Advertising and Travel.

Advertising	118 26
Travel, departmental officers	179 85
	298 11

Special.

Prizes for rifle and revolver competition	50 00
	74,840 52

DORCHESTER.

RECAPITULATION.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	39,554 81	
Uniforms and mess	1,482 58	
		41,037 39
Maintenance of Convicts—		
Rations	8,495 03	
Clothing and medicines	2,594 48	
		11,089 51
Discharge Expenses—		
Freedom suits and allowances	1,389 50	
		1,389 50
Working Expenses—		
Heat, light and water	6,764 45	
Maintenance of buildings and machinery	1,521 47	
Chapels, schools and library	196 94	
Office expenses	634 84	
		9,117 70
Industries—		
Farm	2,906 69	
Trade shops	946 88	
		3,853 57
Prison Equipment—		
Furnishings	596 69	
Utensils and vehicles	311 99	
Land, buildings and walls	7,096 06	
		8,004 74
Miscellaneous—		
Advertising and travel	298 11	
Special	50 00	
		348 11
Total		74,840 52

STAFF.	
Salaries.	
General.	
Warden, 1, 12 mos.	2,200 00
Surgeon, 1, 12 mos.	1,500 00
Chaplains, 2, 12 mos. @ $1,000	2,000 00
Accountant, etc., 1, 12 mos	1,500 00
Steward, 1, 12 mos.	900 00
Engineer, 1, 12 mos.	1,000 00
Hospital overseer, 1, 12 mos	900 00
Industrial.	
Chief trade instructor, 1, 12 mos.	1,000 00
Instructors, 4, 12 mos. @ $800	3,200 00
Police.	
Deputy warden, 1, 12 mos.	1,500 00
Keepers, 2, 12 mos. @ $800	1,600 00
Chief watchman, 1, 12 mos.	900 00
Guards, 18, 12 mos. @ $700	12,600 00
Temporary officers	706 61
	31,506 61
Uniforms.	
Braid, ½ gross.	8 21
Cloth, Italian, 111½ yds.	36 24
" tunic, 5 yds.	16 25
Chin straps, 3 doz.	1 35
Canvas, 300 yds	24 00
Caps, hair seal, 12 only.	36 00
Leather, French calf, 21½ lbs	26 40
" Kangaroo, 54½ ft.	22 89
" welt, 115½ lbs.	51 98
" cordovan 329¼ lbs.	98 78
" sole, 212 lbs	89 76
Laces, porpoise, gross.	9 50
Moose hides, 3 only	28 50
Peaks, leather, 3 doz	9 00
Padding, 2 pcs.	10 00
Rubber tissue, 1 lb.	1 10
Serge, blue, 159¾ yds.	199 69
" khaki, 60 yds.	65 40
Stars, gold embossed, 1 pr.	1 50
Steel shanks, 17 doz.	6 80
Silesia, 103½ yds.	8 80
Thread, machine silk, 2 lbs.	13 50
Wadding, 1 bale.	5 75
Webbing, gaiter, 4 pcs.	1 40
Vinager, 30 gals	8 40
Yeast, 66 lbs	27 72
Freight and express.	4 87
	777 67
Officers' Mess.	
Apples, 5 lbs.	25
Baking powder, 10 lbs.	1 50
Butter, 379½ lbs	75 90
Beef, 1,893 lbs.	112 82
Cornstarch, 12 lbs	96
Cheese, 5¾ lbs.	94
Currants, 6 lbs.	60
Coffee, 3 lbs	1 20
Essences, 6 bottles.	2 50
Eggs, 8 doz	1 39
Egg powder, 6 tins.	90
Flour, 255 bags	614 10
Jam, strawberry, pail	75

STAFF—Con.	
Officers' Mess.—Con.	
Marmalade, 2 jars	50
" 1 pail.	60
Meal of wheat, 1 pckg.	15
Mustard, 5 lbs	1 00
Raisins, 6 lbs.	60
Sugar, gran., 500 lbs.	25 00
Tapioca, 6 lbs.	60
Tea, 8 lbs.	3 20
Freight and express.	1 15
	846 61
MAINTENANCE OF CONVICTS.	
Rations.	
Apples (Christmas extras) 3 bbls.	13 75
Butter (Christmas extras), 50 lbs	10 00
Beans, 2,497 lbs	93 64
Beef, 31,864 lbs	1,895 76
Currants (Christmas extras) 28 lbs	2 52
Fish, 700 lbs	17 50
Flour, 1,020 bags.	2,426 50
Mustard (Christmas extras) 4½ lbs	1 05
Mixed spice (Crhristmas extras) 2 lbs.	60
Molasses, 100 gals.	48 00
Potatoes, 1,685 lbs.	21 06
Pepper, white, 40 lbs.	12 00
Peas, split, 800 lbs.	28 00
Peel (Christmas extras) 6 lbs.	1 00
Raisins (Christmas extras) 28 lbs.	2 31
Rolled oats, 2,480 lbs.	99 20
Rice, 1,220 lbs.	54 90
Sugar, 3,509 lbs.	175 45
Salt, 5,880 lbs.	52 92
Tea, 396 lbs.	63 36
Vinegar, 30 gals	8 40
Yeast, 66 lbs	27 92
Freight and express.	7 35
	5,062 99
Prison Clothing.	
Blue, 12 doz	2 64
Buckles, brace, 1 gross	1 00
Brace webbing, 104½ yds.	12 54
Cheesecloth, 117 yds	4 97
Cloth, convict, 306½ yds.	272 79
Cotton, twilled, 300 yds.	36 00
" grey, 1,192¾ yds.	116 30
Duck, 240½ yds.	43 89
Drop black, in oil, 12 lbs.	2 04
Denim, 650 yds.	138 12
Flannel, grey, 11 yds.	3 14
Galatea, 1,042¾ yds.	135 56
Leather, moccasin, 88 lbs.	35 20
" wax upper, 50 lbs.	21 00
" sole, 1,099 lbs.	263 76
" moose hides, 5 only.	47 50
Nails, iron, 40 lbs.	2 40
Rivets, brass, 47 lbs.	21 15
Starch, 40 lbs.	2 40
Safety pins, 3 doz.	15
Underclothing, 48 doz.	215 52
Yarn, 200 lbs.	89 00
Freight and express.	31 29
	1,498 36

MANITOBA—*Continued.*

MAINTENANCE OF CONVICTS—Con.	
Hospital.	
Butter, 27¾ lbs.	5 55
Bovril, 2 bot.	70
Drugs	158 24
Maintenance of insane convict in Selkirk asylum, 36 days	36 00
Truss, 2 only	86
Tobacco, 10 lbs.	8 00
Crutches, 1 pair.	2 50
	211 85
DISCHARGE EXPENSES.	
Freedom Suits and Allowances.	
Transportation and allowances (44).	581 40
Buttons, coat, 4 gross.	1 12
" pant, 12 gross.	1 20
Canvas, 100 yds.	8 00
Caps, 1½ doz.	9 00
Collars, 3 doz.	3 15
Collar studs, 2 doz.	20
Collar buttons, 2 gross.	48
Leather, 53⅝ lbs.	38 70
Lining, 105 yds.	9 98
Hats, felt, 3 doz.	15 00
Handkerchiefs, 3 doz.	1 17
Mitts, 2 doz.	4 70
Mufflers, 1½ doz.	1 35
Shirts, white, 3 doz.	15 00
Ties, 3 doz.	3 15
Tweed, 467 yds.	117 45
Freight and express.	6 30
	817 35
Less refund of expenditure.	7 35
	810 00
Transfers and Interments.	
Transfers of prisoners	454 40
Freight and express.	9 50
	463 90
WORKING EXPENSES.	
Heat, Light and Water.	
Burners, lantern, 6 doz.	7 50
" lamp, 18 doz.	13 50
Coal, egg, 369^{500} tons	812 64
" soft, 551^{200} tons.	3,692 38
Coal oil, 2845^{25} gals.	611 75
Cordwood, 265 cords	1,325 00
Globes, lantern C.B., 9 doz.	6 30
Glasses, lamp, 48 doz.	27 00
Lamp wick, 4½ gross.	3 40
Matches, 4 gross.	2 40
Containers.	60
Freight and express.	8 50
	6,510 97
Maintenance of Buildings.	
Bronze powder, 1 lb.	1 50
Bolts, chain, 1 only	39
" foot, 7 only.	2 74
" flush, 2 only.	56
Bushings, 6 doz.	2 37
Basin cock, 1 only.	1 00
Beams, 4 only. } Columns, 8 only }	63 00

WORKING EXPENSES—Con.	
Maintenance of Buildings.—Con.	
Castings, 4 only.	5 75
" 744 lbs.	32 31
Copper, tinned, 92 lbs.	29 44
Colours, 622 lbs.	30 39
Chloride of lime, 1,023 lbs.	46 15
Elbows, mall., 12 only.	60
Emery cloth, 20 qrs.	17 50
Flue cleaner, 1 only	2 50
Flower seeds	3 00
Fire bricks, 85 lbs.	7 65
Grate for stove, 1 only.	65
Glass, 300 ft.	25 91
Glue, 225 lbs.	37 25
Hose, metallic flexible, 30 ft.	22 50
Hooks, coat and hat, 9 doz.	5 40
Hinges, 4 prs.	5 44
Insect powder, 4 lbs.	1 12
Inspection of scales	8 00
Japan, brown, 20 gals.	19 00
Ice, 60 tons.	45 00
Knobs, base, 2 doz.	33
Lumber, fir, 2,088 ft.	75 25
" common boards 5,000 ft	125 99
" pine, 8,514 ft	337 50
Lead, black, royal, 1 gross.	2 00
" pure white, 3,000 lbs.	202 50
Latches, Yale night, 6 only.	7 20
Locks, Yale, 1 doz.	13 75
Lime, 280 bush.	73 20
Lye, 44 doz.	44 00
Labour, plastering, 92 hours.	51 85
" painting and papering.	374 00
" cutting slate.	5 40
Moulding, 401 ft.	22 26
Nails, brass chair, 1 M.	67
" wire, 11 kegs.	33 65
Offset, 1 only.	1 34
Oil, B. linseed, 43⅝ gals.	30 57
" raw, linseed. 44⅝ gals.	29 63
Putty, 100 lbs.	2 55
Plaster of Paris, 4 bbls.	13 40
Pipe band, 1 only.	1 10
Push plates, 4 only.	1 00
Putz pomade, 1 gross.	4 20
Paper, toilet, 400 pckgs.	27 82
Pipe, vane, 1 only	3 00
Plugs, 12 only.	17
Rent of storehouse site.	1 00
Repair and changes in telephone system.	71 26
Shingles, cedar, 5 M.	19 50
Sash lifts, ½ gross.	75
Soap, 2,392 lbs.	125 58
Slate, 1 pc.	3 90
Soda, washing, 1,185 lbs.	23 70
Traps, 2 only.	1 06
Turpentine, 115⅓ gals.	84 25
Tacks, cut, 4 gross	1 42
Varnish, 15 gals.	22 00
Wire cloth, 250 sq. ft.	4 38
" brass, 10 lbs.	2 95
" spring, 10 lbs.	59
Wall paper, 86 rolls	20 50
" border, 96 yds.	8 80
Whiting, 3,700 lbs.	46 25
Water closet, 1 only.	19 55
Y, 1 only.	50
Containers.	2 10
Freight and express.	72 90
Switching charges on ice.	6 00
	2,440 39

MANITOBA.—*Continued.*

Working Expenses—Con.	
Maintenance of Machinery.	
Belting, leather, 38 ft.	10 90
Boiler compound, 914 lbs	91 40
Brass tub liners, 2 only.	3 00
Castings, 657½ lbs.	24 80
Engine for windmill.	38 00
" parts for.	17 95
Inspection of boilers.	30 00
Lead, white, 1,000 lbs.	67 50
Oil, machine, 42½ gals.	14 88
" cylinder, 80 gals.	80 00
" linseed, 48⅞ gals.	32 68
Parts of machinery.	23 29
Packing, sheet, 47 lbs.	35 25
Sal soda, 593 lbs.	11 86
Washers, gauge glass, 2 doz.	30
Containers.	2 00
Freight and express.	9 02
	492 83
Chapels, School and Library.	
Altar fittings	7 25
Bibles, 25 only.	17 50
Candles, wax, 24 lbs.	2 88
" 2 boxes.	1 00
Organist's salary, 1 year.	50 00
Repairing and tuning organ.	15 00
Sanctuary oil, 10 gals	13 00
Sub. to magazines, 6 only	22 00
Freight and express.	4 24
	132 87
Office Expenses.	
Postage.	37 00
Printing.	172 89
Stationery	73 38
Subs. to newspapers	20 00
Rolls for typewriter, 3 only.	75
Telegrams.	36 46
Telephone connections.	5 75
Winnipeg city directory.	5 00
Premium on officers' bonds	24 00
Freight and express.	32 35
	407 58
Industries.	
Farm.	
Auctioneer's services.	8 00
Binder twine, 600 lbs.	66 00
Brushes, dandy, 1 doz.	2 83
Bran, 1 ton	17 50
Barley, 140 bush.	84 00
Cultivator, 1 only	50 00
Examination of horses (veterinary).	4 00
Forks, hay, 1 doz.	5 40
Horse shoeing.	38 75
Harrow, disc, 1only	35 00
Harness, parts for	8 50
Horses, 4.	850 00
Mower, 1 only.	55 00
Parts of machinery.	30 35
Repairs to machinery.	3 00
Snaps, harness, 3 doz.	87
Shorts, 1 ton.	21 00

Industries—Con.	
Farm.—Con.	
Seeds	33 10
Travelling expenses of instructor	15 30
Threshing grain, 5,560 bush	166 80
Veterinary service and medicine.	28 00
Freight and express.	8 87
	1,532 27
Trade Shops.	
Ammonia, 1 gal.	1 89
Awls, sewing, 2 gross.	3 50
" harness, 1 gross.	2 00
Acid, mur., 12 lbs.	3 96
Auger bits, 14 only	2 89
Bolts, carriage, 400 only	4 12
Bolts, expansion, 72 only	7 20
Bristles	12 50
Buttons, pant, 12 gross.	1 20
Buckles, pant, 1 gross	65
" harness, 1 gross	75
Button hole cutter, 1 only.	1 50
Borax, 5 lbs.	30
Bush hammers sharpened, 3 only.	7 50
Bench screws, 2 only	1 20
Chalk lines, 1 doz.	35
" tailors, 2 boxes.	64
" carpenters', 1 doz	08
Cordwood, tamarac, 145 cords	725 00
" poplar, 50 cords	162 50
Charcoal, 5 sacks	3 00
Coal, blacksmith, 2 tons.	19 00
Canada plate, 4 boxes	12 40
Castings.	30
Couplings, galv., 1 doz	44
Chair seats, perforated, 1 doz.	2 04
Copper, tinned, 35 lbs.	9 27
Candle wick, 5 lbs.	1 05
Drills, machine, 3 only.	82
Denim, 350 yds.	74 38
Files, 5 doz	5 04
Enamel, 2½ gals.	4 00
Eyes, perforated, 5 M.	3 75
Gunnie sack, 1 only	10
Grates for heaters (tailors.) 2 only.	1 25
Hinges, 3 doz. prs.	5 72
Hooks, boot, 5 M.	5 00
Horseshoes, 300 lbs	12 75
Hammers, masons', 6 only	3 36
Ink, burnishing, 1 doz bots.	2 00
Iron, 3,765 lbs.	117 18
Lamp black, 10 lbs.	1 00
Leather (sheep skins) 118½ lbs.	11 86
" sole, 45 lbs	10 80
Level glasses, 2 doz.	1 45
Locks, mortice, 1 doz.	4 24
Mitts, harvesters', ½ doz. prs.	2 25
Masons' lines, 2½ doz.	2 42
Machine silk, 4 lbs	20 00
Mitts, tapped, 180 lbs.	16 19
Nails, iron, 10 lbs.	60
Needles, 110 papers.	3 30
Oil, sewing machine, 1 gal.	75
Oil stones, ½ doz.	1 09
Plate, 4 sheets	9 92
Plane irons, 8 only.	3 18
Planes, jack, 3 only	7 05
Parts for machine.	2 00
Pail ears, 50 lbs.	9 00
Rope, 316½ lbs.	39 54
Rivets, 108 lbs	28 50

MANITOBA.—*Continued.*

INDUSTRIES—Con.			
Trade Shops.—Con.			
Repairs to Stanley planer.,		3	60
Saw blades, 6 only			42
Shellac, orange, 2 gals		5	50
Screws, coach, 50 only			70
" 85 gross		20	64
Starch, 36 lbs		2	16
Sub. Tailor and Cutter, 1 year		3	00
Squares, box wood, 2 only		5	00
Toe calks, 50 lbs		3	50
Tin, block, 56½ lbs		24	86
" IXX, ½ box		7	00
Thread, linen, 41 lbs		92	10
" Ullathorne, 12 lbs		9	90
" shoe, 8 lbs		9	00
" (spool of 9,600 yds.) 1 spool		1	85
Washers, iron, 20 lbs		1	22
Wrenches, Coes, 2 only		1	45
Containers		4	15
Postage			24
Freight and express		19	16
	1,613	17	
PRISON EQUIPMENT.			
Machinery.			
Pump, Barnes, 1 only		7	50
Furnishings.			
Crash, towelling, 597¾ yds		62	78
Damask, towelling, 4½ yds		2	25
Linen, 307 yds		33	77
Matting, 48 yds		29	76
Oilcloth, 4 pcs		10	00
Soap, shaving, 30 lbs		12	60
" naptha, 1 box			19
" castile, 72 lbs		9	36
Ticking, 108¾ yds		21	20
Wool, repp., 6½ yds		14	63
Freight and express		1	62
	198	16	
Utensils and Vehicles.			
Brushes, shaving, 1 doz		2	00
" rice root, 12 doz		12	00
Brooms, 12 doz		27	00
Baskets, clothes, 2 only		2	00
Bath bricks, 4 doz		2	75
Combs, barbers, ½ doz			88
Casting for range, 125 lbs		11	25
Cartridges, 4 M		57	00
Fire bricks, 2 sets		33	75
Handles, sledge, 15 doz		26	25
" axe, 2 doz		4	00
Hose, suction, 8 ft		2	80
Molasses gate, 1 only			75
Oiler's bench, ½ doz			51
Plates, 1 doz		1	00
Razors, 6 only		4	50
Repairs to clock		7	00
Spoons, table, 1 doz		1	80
Stove wicks, 2 doz		2	50
Tea steepers, ⅝ doz		1	60
Thermometers, 3 only		1	35
Wash basins, 6 doz		8	22

PRISON EQUIPMENT.—Con.			
Utensils and Vehicles.—Con.			
Containers			10
Freight and express		3	60
	214	61	
Lands, Buildings and Walls.			
Beams, 7 only		19	95
Bricks, fire, 500 only		25	00
Bonding mesh, 2,928 sq. ft		122	98
Bath with fittings, 1 only		55	00
Bronze powder, 5 lbs		4	00
Bannisters, 50 only		32	50
Blue prints, 3 only			67
Cement, 300 bbls		825	00
Colours, 65 lbs		7	00
Felt, tarred, 6,680 ft		194	39
Felt, resin sized, 10 rolls		10	80
Fire clay, 1,500 lbs		15	00
Fuse, 500 ft		3	25
Glass, 2,400 ft		84	75
" decorated, 5 lights		40	00
Glue, 25 lbs		4	25
Glaziers' points, 1 doz.pckgs		1	00
Lead, 303½ sq. ft		127	47
Lumber, pine, 15,707 ft		476	65
" spruce, 1,000 ft		25	00
" fir, 845 ft		42	25
" cedar, 1,500 ft		75	00
" 3 x 2, 6,960 ft		292	32
Lime, 1,505 bush		361	20
Nails, wire, 9 kegs		27	65
Putty, 300 lbs		7	65
Pitch, 9,172 lbs		152	25
Powder, blasting, 20 kegs		60	00
Pipe, soil, 15 ft		8	10
Reducers, 1 only			90
Steel channels, 420 lbs		14	70
Steel beams, 18 only		148	00
Sand, 334 yds		83	50
Sink, with fittings, 1 only		16	00
Valves, gate, 4 in., 1 only		8	00
Y's,1 only		1	80
Freight and express		69	32
	3,443	32	
MISCELLANEOUS.			
Advertising and Travel.			
Advertising		54	40
Expenses return of paroled convict		5	70
Travel of departmental officers		357	35
" penitentiary officers		347	10
	764	55	
Special.			
Rifle and revolver competition prizes		50	00
Expenses recapture and return of escaped convicts, 2 only		479	41
Reward for recapture of one convict		100	00
	629	41	
	59,565	60	

MANITOBA.

Recapitulation.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	31,506 61	
Uniforms and mess	1,624 28	
		33,130 89
Maintenance of Convicts—		
Rations	5,062 99	
Clothing and medicines	1,710 21	
		6,773 20
Discharge Expenses—		
Freedom suits and allowances	810 00	
Transfer and interment	463 90	
		1,273 90
Working Expenses—		
Heat, light and water	6,510 97	
Maintenance of buildings and machinery	2,933 22	
Chapels, schools and library	132 87	
Office expenses	407 58	
		9,984 64
Industries—		
Farm	1,532 27	
Trade shops	1,613 17	
		3,145 44
Prison Equipment—		
Machinery	7 50	
Furnishings	198 16	
Utensils and vehicles	214 61	
Land, buildings and walls	3,443 30	
		3,863 57
Miscellaneous—		
Advertising and travel	764 55	
Special	629 41	
		1,393 96
Total		59,565 60

STAFF.	
Salaries.	
General.	
Warden, 1, 12 mos	2,200 00
Chaplains, 2, @ $1,000	2,000 00
Surgeon, 1, 12 mos	1,500 00
Accountant, etc., 1, 12 mos	1,200 00
Storekeeper, 1, 12 mos	900 00
Steward, etc., 1, 12 mos	900 00
Hospital overseer, etc., 1, 12 mos	900 00
Engineer, etc., 1, 12 mos	1,000 00
Industrial.	
Chief trade instructor, 1, 12 mos	1,000 00
Trade instructors, 5, 12 mos., @ $800	4,000 00
Police.	
Deputy warden, 1, 12 mos	1,500 00
Chief watchman, 1, 12 mos	900 00
Watchman, 1, 12 mos	750 00
Keepers, 2, 12 mos., @ $800	1,600 00
Guards, 7, 12 mos., $700	4,900 00
" 6, broken periods	2,683 26
Temporary officers	1,260 40
	29,193 66
Retiring Gratuities.	
Instructor, A. Coutts	1,604 15
Uniforms.	
Braid, 36 yds	21 60
Buttons, 4 doz	1 60
Blacking, 12 tins	75
Canvas, 200 yds	32 00
Cloth, Italian, 123 yds	67 65
" Tunic, 4 yds	13 00
Cap peaks, 5 doz	16 00
Duck, 46 yds	11 96
Gloves, 30 pairs	31 00
Lining, 10¾ yds	7 95
Leather, kip, 57 lbs	14 82
" brown, 4 sq. ft	2 50
" sole, 243½ lbs	59 01
" chrome, 77 ft	20 02
" calf skins, 62½ ft	16 19
Padding felt, 40 yds	12 00
Serge, blue, 274 yds	343 60
" Khaki, 105 yds	114 45
Sweat bands, 4 doz	7 20
Thread, 2 gross	28 80
Wire, cap, 1 roll	50
Containers	1 00
Freight and express	17 03
	841 63
Mess.	
Baking powder, 10 lbs	4 00
Butter, 611 lbs	140 53
Beef, 4,595 lbs	340 01
Bacon, 76 lbs	14 08
Cheese, 5 lbs	90
Curry powder, 2 lbs	70
Coffee, 50 lbs	12 50

STAFF—Con.	
Mess.—Con.	
Currants, 30 lbs	3 00
Cornstarch, 20 lbs	1 30
Essences, vanilla, 3 bottles	1 10
" lemon, 3 bottles	1 05
Eggs, 83 doz	20 75
Fish, halibut, 177 lbs	11 48
" herrings, 88 " s	4 40
" cod, 116 lbs	7 43
" salmon, 397 lbs	23 82
Flour, 1 sack	1 60
" 1 bbl	6 00
Fruit, mixed, 8½ doz. tins	22 50
Ginger, 2 lbs	30
Lard, 30 lbs	3 75
Milk, condensed, 6 cases	35 50
Milk, 1,095 qts	109 50
Mustard, 19 lbs	7 60
Nutmegs, ½ lb	50
Raisins, 25 lbs	4 20
Soda, 12 lbs	42
Sago, 6 lbs	65
Savory, 1 lb	35
Salmon, 8 doz. tins	9 00
Sugar, granulated, 650 lbs	38 35
Spices, mixed, 1½ lbs	30
Thyme, 1 lb	25
Tea, 100 lbs	27 00
Vegetables, mixed, 6 doz	8 85
" tomatoes, 1 case	3 50
" peas, 1 case	2 50
Freight and express	5 80
	875 47
MAINTENANCE OF CONVICTS.	
Rations.	
Apples, evaporated, 1,500 lbs	131 25
Beef, 29,627 lbs	2,192 40
Beans, 4,305 ¾ lbs	129 16
Barley, 100 lbs	3 00
Christmas Extras	23 91
Cornmeal, 1,150 lbs	25 87
Fish, halibut, 3,066 lbs	199 28
" herring, 1,174 lbs	58 70
" cod, 287 lbs	17 22
" salmon, 2,369 lbs	142 14
Flour, 406 bbls	2,068 50
Hops, 14 lbs	2 10
Keep of female prisoner, 20 days	10 00
Lard, 420 lbs	52 50
Oatmeal, 305 lbs	11 43
Prunes, 2,510 lbs	122 50
Pork, 2 bbls	46 00
" 141 lbs	15 27
Pepper, 132 lbs	26 40
Potatoes, 1,000 lbs	15 00
Rolled oats, 1,710 lbs	64 11
Rice, 1,235 lbs	43 08
Salt, fine, 2,600 lbs	23 40
" coarse, 1,800 lbs	11 70
" dairy, 200 lbs	1 80
Sugar, brown, 5,100 lbs	229 50
Syrup, 9,860 lbs	246 49
Soda, 12 lbs	42
Tea, 415 lbs	66 40
Vinegar, 63 gals	18 90
Yeast, 120 cakes	6 00

MAINTENANCE OF CONVICTS.—Con.			DISCHARGE EXPENSES—Con.		
Rations.—Con.			*Transfers.*		
Yeast, 112 lbs		33 60	Transfer of one female to Edmonton		203 00
Freight and express		9 82	WORKING EXPENSES.		
	6,047	85	*Heat, Light and Water.*		
Clothing.			Cordwood, 50 cords		137 50
Buckram, 5 yds		1 12	Coal oil, 91½ gals		27 60
Buckles, pant, 3 gross		60	Coal, lump, 131½ tons		787 50
Buttons, pant, 48 gross		5 76	" nut, 168 tons		823 20
" shirt, 24 gross		3 60	Lamps, electric, 762 only		153 35
Crash, 500 yds		67 50	Electric current		501 75
Canvas, 400 yds		33 00	Lamp chimneys, 9 only		1 65
Cotton, 468½ yds		48 36	Matches, 6 gross		4 50
Denim, 1,070 yds		227 37	Wicks, lamp, 3 only		30
Flannel, 153 yds		19 19	Water		631 03
Ink, marking, 1 gal		2 50		3,068	38
Jean, 218½ yds		17 48	*Maintenance of Buildings.*		
Linen, forfar, 479 yds		104 17			
Leather, kip, 62½ ft		16 25	Annunciator, 1 only		6 50
" chrome, 318½ ft		78 97	Alabastine, 30 lbs		2 40
" sole, 1179 lbs		284 65	Brackets, wall, 6 only		3 30
" lace, 15 lbs		11 25	Brass, 1 piece		25
" skins, 30 ft		7 50	Bushings, 10 only		1 80
Shirting, 1,547¼ yds		205 00	Branches, Y.T., 2 only		1 11
Underwear, 108 doz. pieces		484 92	Borax, lump, 10 lbs		1 00
Webbing, 204 yds		30 60	Batteries, Columbia, 7 only		5 10
Yarn, 250 lbs		111 25	" flash light, 2 only		1 00
Freight and express		49 43	Blue, 54 lbs		2 16
	1,810	47	Blocks, double, 3 only		9 75
Hospital.			Baths, enamelled, complete, 4 only		136 40
			Bells, door, 1 only		1 50
Ammonia, 2 lbs		40	" electric, 2 only		1 20
Bacon, 5¼ lbs		1 05	" box wood, 3 only		1 80
Cornstarch, 15 lbs		98	" roughed, 12 only		4 05
Cocoa, ½ lb		44	Bathbrick, 2 doz		80
Drugs and medicines		339 73	Bend, 1 only		25
Eggs, 6 doz		1 50	Castings, 2 only		17 20
Fluid beef, 13 lbs		11 50	Catches, elbow, 1 doz		2 00
Professional services (consultation)		20 00	Cord, sash, 5 lbs		2 00
Forceps, 1 pair		5 50	Clamps, W.R., 6 only		1 50
Goggles, 1 doz. pairs		1 50	Chain, 85 lbs		5 10
" repairs to		2 51	Cocks, basin, 2 only		1 70
Milk, 542 pints		27 10	" waste, 6 only		4 75
Whiskey, 1 bottle		1 25	" compound, 4 only		4 38
Uvalotine, 1 only		5 60	" stop, 1 only		5 50
		419 06	Crosses, 6 only		3 50
			Couplings, hose, 2 pairs		30
			" flanged, 1 only		4 80
			" 30 only		4 50
DISCHARGE EXPENSES.			Colours, 52 lbs		10 63
			" 5¾ gals		18 00
Freedom Suits and Allowances.			Chair bottoms, perf., 1 doz		4 00
			Castors, 1½ doz., sets		12 30
Transportation and allowances (52)		734 25	Crowfeet, 6 doz		30
Braces, 6 doz. pairs		9 00	Cement, 50 bbls		137 50
Hats, 12 doz		51 79	Discs, Jenkins, 6 only		73
Ties, 6 doz		9 00	Dry, cells, 6 only		2 50
Tweed, 240 yds		67 20	Door springs, ½ lbs		2 10
Freight and express		8 21	Electroliers, 4 only		22 00
		879 45	Elbows, 48 only		13 20
Less refund of expenditure		18 00	Friction paper, 180 sheets		3 60
		861 45	Fly paper, 7 boxes		4 20
			Fire clay, 400 lbs		11 25
			Fuse, 500 ft		3 25
			Ferule, brass, 1 only		60
			Gum, Benzoin, 1 lb		1 50
			Glass, 1,000 ft		57 10
			Hose, bibbs, 3 only		3 00

WORKING EXPENSES—Con.

Maintenance of Buildings.—Con.

Hose 250 ft	45 00
" fittings,	2 13
Hinges, 4 doz. pairs	5 50
Heaters, defiance, 2 only	75 00
Iron, 938 lbs	28 91
" galvanized, 226 lbs	14 44
" sheet, 358 lbs	17 90
" bar, 436 lbs	13 63
" round, 52 lbs	1 82
" Norway, 402 lbs	18 22
" band, 50 lbs	1 90
Ice, 3,000 lbs	23 25
Insulators, 236 only	3 82
Japan, brown, 20 gals	17 00
" black, 20 gals	15 00
Key blanks, 1 doz	1 00
" and screw, 1 only	1 53
Knob, rim, 1 doz	1 50
Lubricating glasses, 2 only	70
Lamp, guards, 12 only	1 50
Leather, lace, 13 lbs	10 20
Lead, white, 2,700 lbs	205 20
" red, 150 lbs	12 00
" waste, 4½ lbs	51
Locks, padlocks, ½ doz	18 00
" " yale, ½ doz	18 00
" drawer, 10 only	6 04
" night, 1 only	2 00
" cupboard, 2 doz	9 25
" chest, ½ doz	3 00
Lye, 336 boxes	26 88
Labour, machinist, 36½ hours	26 55
" plumber, 4½ hours	3 80
" helper, 4½ hours	1 15
Lumber, shiplap, 1,500 ft	28 50
" spruce, 512 ft	27 83
" cedar, 34,268 ft	654 83
" rgh., 12,366 ft	272 39
" fir, 13,024 ft	267 69
" D.D. clear, 233 ft	8 97
" D.D. common, 533 ft	10 39
" clear base, 441 ft	21 16
" mldg., 1,434 ft	37 83
Lime, 28 bbls	49 00
Metal, lathing, 2,250 sq. ft	75 00
Nipples, 6 only	36
Nails, 70 lbs	5 45
" 18 kegs	73 60
" brass, 1,000 only	1 50
Offset, 1 only	2 10
Oak, toppins, 100 only	1 75
Oil, boiled, 453 gals	36 91
Paper, builders, 8 rolls	7 20
" asbestos, 40 lbs	4 40
Push buttons, 3 only	1 35
Plugs, spark, 1 only	1 50
" 72 only	2 64
" fuse, 9½ doz	5 72
Pipe, galvanized, 153¼ f	9 08
" soil, 33 lens	6 67
" black, 1,365 ft	70 23
" stove,	5 00
" water, 9 ft	1 00
" 18½ ft	9 42
" hot air, 10" 47½ f	9 47
Pumice, 2 lbs	20
Putty, 208 lbs	7 29
Plates, floor, ½ doz	60
" ceiling, ½ doz	60
Plaster of Paris, 2 bbls	9 50
Registers, 8 only	14 60
" sundry parts	6 10

WORKING EXPENSES.—Con.

Maintenance of Buildings.—Con.

Reducers 19 only	4 90
Radiators, 4 only	123 12
Repairs to range	39 45
Rope, Manilla, 569¾ lbs	69 07
" wire, 360 ft	27 00
Sockets, keyless, 6 only	2 05
" key, 24 only	3 24
Sapolio, 6 only	75
Soap, 1,685 lbs	86 41
Sash fasteners, 6 doz	6 00
Shades, fancy, 1 doz	3 20
" alumimum, ⅔ doz	5 10
" glass, ½ doz	83
Sand paper, 18 qrs	7 20
Spikes, 400 lbs	20 00
Screws, 132 gross	62 89
Steel, 107 lbs	4 28
Steel, knife, 26 lbs	9 36
" C.R., 4 lbs	30
" oct., 119 lbs	17 25
Shears, rollers, bushed, 2 only	4 00
Shade holders, 45 only	29 51
Switches, 18 only	12 70
Sink, galvanized, 1 only	2 50
" enamelled, 1 only	3 75
Tape, 5 lbs	2 00
Turpentine, 85⅔ gals	85 15
Tacks, 1 doz	60
Traps, 4 only	6 60
Toilet paper, 5 cases	32 20
Tallow, 125 lbs	6 25
Tees, 67 only	81 55
Tar, 1 bbl	8 00
Tripoline, 6 boxes	3 00
Tins, 48 only	3 84
Unions, 40 only	7 88
Valves, 21 only	74 97
Varnish, 5 gals	20 00
Wire, 285 lbs	56 56
" 3,240 ft	40 96
" cloth, 300 sq. ft	6 75
Wire netting, 750 sq. ft	22 50
Whiting, 405 lbs	8 10
Wax floor, 20 lbs	10 00
Wood filler, 1 gal	1 90
Water-meter, 1 only	175 00
Cartage	6 44
Custom's duty	72 42
Freight and express	32 01
	4,235 06
Less refund of expenditure	3 24
	4,231 82

Maintenance of Machinery.

Belting, tan, 150 ft	72 00
Cup greaser, Albany, 5 only	1 25
Cocks, steam, 2 only	4 00
Feed lubricator, 1 only	8 00
Furnace, S.S. and casing, 1 only	67 75
Grease, 25 lbs	5 50
Graphite, 10 lbs	3 00
Gasoline, 45 gals	13 73
Gauge glasses, 6 only	48
Boiler inspection	10 00
Lining for feed door, 1 pair	1 50
Nuts, 25 lbs	2 00
Oiler for extractor, 1 only	2 00
Oil, engine, 5 gals	5 00

BRITISH COLUMBIA.—*Continued.*

Working Expenses—Con.	
Maintenance of Machinery.—Con.	
Oil, machine, 44½ gals	15 72
" lard, 3 gals	4 50
Pendant, 1 only	2 90
Packing, Garlock, 2 boxes	1 85
" spiral and rainbow, 59$\frac{7}{12}$ lbs	37 56
Spindle for throttle valve, 1 only	2 75
Spur gear, 1 only	1 37
Soda, Wyandotte, 560 lbs	14 00
Tubing, 18 lens	8 40
Washers, 10 lbs	85
" 212 only	5 35
Waste cotton, 10 lbs	1 00
	292 46
Chapels, Schools and Library.	
Candles, 1 box	3 50
Binding cloth, 50 yds	19 00
Books, catechisms, 10 only	2 00
" readers, 12 only	4 80
" educators, 30 only	4 50
" history,	44 65
" shop practice, 1 set	11 28
Music, 106 pieces	13 05
Subs. to magazines, 15 only	38 95
Slates, 6 boxes	3 84
" 2 doz	2 40
" pencils, 2 boxes	34
Organists' salaries (2 for 1 year)	100 00
Millboards, 100 only	11 65
Printing of library cards	2 00
Washing altar cloth	2 00
" linen	1 50
	265 46
Office Expenses.	
Premium on officers' bonds	24 00
Printing	296 85
Stationery	259 34
Repairs to Eco clock	3 00
" typewriter	6 50
Rent of post office box	5 00
Telephones and connections	154 29
Telegrams	71 62
Postage	40 00
Inspection of scales	1 50
Subs. to newspapers, 3 only	8 50
Freight and express	58 31
	928 91
Farm.	
Axle grease, 4 doz. boxes	6 00
Axles, hickory, 2 only	6 00
Bran, 4,524 lbs	68 34
Bolt, hooks, 1 only	25
Brews of grains, 160 only	80 00
Bolsters, front, 4 only	5 60
" hind, 4 only	5 60
Calks, horse, shoe, 4 boxes	8 60
Colours, 5 lbs	1 55
Caps, blasting, 1 box	1 00
Doe, 1 only	5 00
Handles, rake, 2 doz	3 00
Hames, 1 pair	3 50
Hubs, 1 set	8 25

Working Expenses.—Con.	
Farm.—Con.	
Hubs, car, 1 pair	2 25
Horses, 2 only	600 00
Horse shoes, 327 lbs	16 35
" 2 kegs	10 00
Hooks, 2 gig	50
Lumber, oak, 100 ft	19 00
Manure, 63 loads	32 25
Nails, horseshoe, 30 lbs	4 50
Nuts for axles, 10 lbs	4 00
Neckyokes, 6 only	7 50
Oats, 24,335 lbs	401 77
Picks, R.R., 1⅔ doz	12 50
Powder, blasting, 3¾ kegs	9 94
Pads, collar, 3 only	3 00
Plow points, 2 only	4 50
Shorts, 2,000 lbs	32 00
Scythe stones, ½ doz	60
Sand boards, 8 only	11 20
Shovels, 2½ doz	35 00
Soap, oil, 5 lbs	50
Spokes, and rims, 5 sets	71 80
Scythes, 2 only	4 00
Terrets, 4 only	1 00
Tar, pine, 1 can	25
Washers, iron, 25 lbs	2 00
Waggon pole, 1 only	3 00
Wheat, 125 lbs	2 50
Veterinary services, 2 visits	6 50
Freight and express	25
	1,501 35
Trade Shops.	
Axes, bench, 4 only	5 00
" chopping, 12 only	10 00
Awls, sewing, 2 gross	3 80
" stabbing, ½ gross	95
Acid, mur, 1 gal	2 00
Brushes, tailors, 6 only	5 00
" varnish, 24 only	10 00
" glue, 6 only	2 63
Blocks, single, 2 only	3 50
Babbit, metal, 21 lbs	3 15
Bits, 6$\frac{7}{12}$ doz	35 27
Cheese, cloth, 5 yds	30
Chalk, 2 boxes	1 50
Chalk, line, 5 lbs	2 00
Coal, blacksmiths, 9 tons	180 00
Crayons, 1 box	1 00
Diamond mortiser, with chisels, 1 only	30 20
Drills, 2 sets	13 00
Dies, 6 sets	27 00
Duck, 105 yds	43 55
Eyelets, 2 boxes	1 20
Emery cloth, 1 doz	60
Foot rock, 25 lbs	2 00
Files, 11 doz	18 58
Glass cutter, 1 only	2 50
Gear bore, 1 only	16 50
Gauges, 1 only	1 00
Hammers, claw, 1 doz	6 00
Hemp, thread, 25 lbs	12 50
Horse shoes, 100 lbs	5 00
Handles, saw, 6 pairs	2 40
" axe, 2 doz	7 50
" wrench, 2 only	3 10
" pick, 8 doz	24 50
" sledge, 16 doz	50 80
Head, guide, 1 only	2 00
Ink, shoe, 4 gals	2 20

WORKING EXPENSES.—Con.

Trade Shops.—Con.

Iron, 1,296 lbs	40 44
Joiners, 2 only	10 60
Leather, calf skins, 94¼ ft	17 04
" chrome, 313½ ft	75 24
Methylated spirits, 1 quart	56
Mitre machine, 1 only	13 98
Needles, 120 papers	3 00
" machine, 8 doz	2 00
Nails, cut, 4 kegs	16 10
" wire, 2 kegs	7 20
" brass, 30 lbs	10 50
" channel, 30 lbs	4 50
" iron, 60 lbs	4 20
Oakum, 10 lbs	1 00
Oilers, bench, 3 only	45
Oil stone, slips, 1 doz	1 80
Oil stones, 4 only	3 40
Plyers, 1 pair	1 00
Polish, 5 gals	5 00
Planes, moulding attachment, 1 only	6 30
" groove cutters, 1 set	7 00
" knives, 4 pairs	20 16
" stanley, 4 only	14 60
Paper, blue process, 1 roll	1 50
Pencils, carpenters, 1 gross	2 64
Pins, 3 doz. papers	2 25
Parts for knitting machines	13 02
Rope, 250 lbs	30 00
Rivets, 5 only	75
Rules, 2½ doz	12 50
Springs, 2 doz	2 20
Steel, machine, 232 lbs	9 51
Subs. tailor and cutter	3 00
" Cement and English News	4 50
Screws' bench, 4 only	3 00
Spikes, R.R., 100 lbs	5 00
Spirit levels, 2 only	3 00
Shovels, 12 only	12 75
Saws, 9 only	15 85
Squares, try, 2 only	2 50
Sand paper, 18 doz	3 60
Tape measures, 1 doz	60
Tacks, 18 lbs	2 70
Thimble skeins and boxes, 1 set	11 00
Thread, spools, 4½ gross	22 00
" 26 lbs	62 70
" wax, 6 balls	5 10
Taper tacks, 3 only	3 25
Wheels, cutter, 4 sets	2 40
Winch, hoisting, 1 only	42 00
Wrenches, 7 only	6 55
Webbing, 55 yds	1 25
Wool, 5 yds	75
Wax, 20 lbs	1 80
Washers, 1 only	10
Customs duty	12 00
Freight and express	43 64
	1,149 71

PRISON EQUIPMENT.

Machinery.

Geared feed drill, 1 only	186 00
Twist drills, 18 only	13 04
Parts of pug mill	33 55
Steel, sleeves, 2 only	7 70
" socket, 1 only	3 85
Freight and express	70 77
	314 91

PRISON EQUIPMENT.—Con.

Furnishings.

Blankets, 1,350 lbs	580 50
Bowls, wash, enamelled, 2 only	7 20
Chairs, 8 only	6 80
Cotton, grey, 242 yds	29 04
Lumber, spruce, 48 ft	2 95
Soap, shaving, 20 lbs	7 00
" castile, 756 lbs	60 48
Watering can, 1 only	75
Freight and express	38 80
	733 52

Utensils and Vehicles.

Basins, 2 only	80
Buckets, galvanized iron, 13 doz	95 00
Battery, flashlight, 2 only	1 00
Boiler, double, 1 only	1 50
Brooms, 146 only	30 00
Copper, 33½ lbs	11 73
Clippers, hair, 4 pairs	14 00
Cans, 108 only	7 52
Cups and saucers, 3 doz	4 00
Crocks, butter, 1 only	1 25
Dusters, 3 only	6 00
Gate, 1 only	1 50
Globes, lantern, ½ doz	60
Hone, razor, 1 only	90
Hand, oilers, 2 brass	2 00
Iron, sheet, 139 lbs	6 95
Knives, table, 1 doz	2 00
" butcher, 1 only	75
Ladles, soup, 1 doz	1 80
Mouse traps, 1 doz	60
Molasses gate, 1 only	50
Mugs, 9 doz	14 95
Oil cans, copper, 3 only	45
Picks, 4 only	2 50
Pots, coffee, 4 only	8 00
" agate, 1 only	1 25
Pans, tin dish, 2 only	1 50
" sauce, 2 only	2 70
" meat, 2 only	1 50
" fry, 2 only	1 20
" dust, 2 doz	3 60
" pudding, 1 doz	2 50
Parts of lawn mower	50
Plates, 5 doz	6 50
Range, 1 only	285 50
Razors, 1 doz	18 00
Soup dishes, 3 doz	8 25
Saucers, enamelled, 5 doz	5 25
Skimmers, soup, 4 only	60
Strainer, comb., 1 only	50
Spoons, cook, 2 only	50
" table, 48 only	1 40
Tubs, wash, 2 only	4 50
Water cans, 2 only	2 00
Whisks, 1 gross	16 20
Wheels, car, 3 sets	59 00
Freight and express	6 85
	646 10

Lands, Buildings and Walls.

Beds, woven wire, 66 only	316 80
Blue prints, 9 only	1 72
Bushing, 6 only	43
Bends, 10 only	7 00

BRITISH COLUMBIA.—*Continued.*

PRISON EQUIPMENT—Con.

Lands, Buildings and Walls.—Con.

Bibbs, 8 only	5 42
Cell door barriers, 66 only	3,348 18
Cess pools, galvanized iron, 3 only	13 20
Couplings, 1 only	4 13
Crosses, 6 only	3 00
Cement, 293¾ bbls	807 81
Cocks, air, 11 only	2 75
" waste, 3 only	4 50
Chain, sash, 400 ft	8 00
Cord, 200 ft	4 00
Drain, tile, 3-in., 280 ft	11 20
Dynamite, 2 cases	18 20
Elbows, 130 only	34 48
Fish plates, 135 sets	33 75
Flushometers, 6 only	98 40
Glass, 2 cases	15 60
Gasolene, 45½ gals	13 88
Hinges and bolts, 132 sets	6 60
Hose, W.W., 50 ft	8 50
Hire of scows	255 37
Iron, 879 lbs	52 40
Locking clevises, 36 only	36 00
Land, 2 lots	14,986 29
Legal expenses re land	106 55
Lime, 192 bbls	336 00
Lumber, rgh., 21,243 ft	432 46
" fir, 41,567 ft	663 78
" cedar, 12,593 ft	207 38
" D.D., 4,311 ft	155 20
" gutter, 30 ft	3 00
Nails, cut, 8 kegs	32 60
Offset, 1 only	1 25
Pulley, wood, 1 only	4 68
" parts for	6 26
Plaster of Paris, 1 bbl	4 75
Pipe, drain, 560 ft	48 80
" blk., 1641½ ft	253 44
" soil, 184 ft	38 85
Pitch, 1,400 lbs	17 63
Parts for furnace	27 09
Resin, 50 lbs	2 50
Rails, steel, 15,200 lbs	376 20
Sinks, galvanized iron, 2 only	5 00
Shingles, 30 m	68 40
Steel, machine, 5 065 lbs	207 66

PRISON EQUIPMENT—Con.

Lands, Buildings and Walls.—Con.

Tarred, felt, 139 rolls	239 10
Tar, coal, 3,000 lbs	37 50
" 3 bbls	24 00
Towing of scows, 12 trips	270 00
Tees, 20 only	16 02
Unions, 32 only	14 54
Valves, 1 only	3 50
" brass, 8 only	48 00
" hand, 3 only	30 00
" check, 2 only	4 50
Wire, 50 lbs	2 50
" cloth, 35 sq. ft	4 67
" cloth, 12 yds	12 00
Y's, 3 only	2 25
Cartage	30
Freight and express	6 75
	23,812 72

MISCELLANEOUS.

Advertising and Travel.

Advertising	51 80
Street railway tickets	18 007
Travel officers of Penitentiary	155 25
" " department	598 2
Bridge, tolls	70
Expenses, extradition of convict	85 25
	909 27

Special.

Legal services re escapes	142 50
Pinkerton detective agency services	31 30
Repairing plate	2 00
Rewards for recapture of 2 convicts	50 00
	225 80
	79,937 15

BRITISH COLUMBIA.

RECAPITULATION.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	30,797 81	
Uniforms and mess	1,717 10	
		32,514 91
Maintenance of Convicts—		
Rations	6,047 85	
Clothing and medicines	2,229 53	
		8,277 38
Discharge Expenses—		
Freedom suits and allowances	861 45	
Transfer and interment	203 00	
		1,064 45
Working Expenses—		
Heat, light and water	3,068 38	
Maintenance of buildings and machinery	4,524 28	
Chapels, schools and library	265 46	
Office expenses	928 91	
		8,787 03
Industries—		
Farm	1,501 35	
Trade shops	1,149 71	
		2,651 06
Prison Equipment—		
Machinery	314 91	
Furnishings	733 52	
Utensils and vehicles	646 10	
Land, buildings and walls	23,812 72	
		25,507 25
Miscellaneous—		
Advertising and travel	909 27	
Special	225 80	
		1,135 07
Total		79,937 15

ALBERTA.

STAFF.		
Salaries.		
General.		
Warden, 1, 12 mos	2,200 00	
Surgeon, 1, 12 mos	1,200 00	
Chaplains, 2, 12 mos. @ $800	1,600 00	
Accountant, etc., 12 mos	1,200 00	
Steward, etc., 12 mos	900 00	
Hospital overseer, etc., 12 mos	900 00	
Matron	500 00	
Industrial.		
Chief trade instructor, 12 mos	1,000 00	
Engineer, etc., 12 mos	1,000 00	
Trade instructors, 4, 12 mos. @ $800	3,200 00	
Police.		
Deputy warden, 12 mos	1,500 00	
Chief watchman, 12 mos	900 00	
Watchmen (2) broken periods	465 72	
Keepers, 1, 12 mos	800 00	
Guards, 3, 12 mos. @ $700	2,100 00	
" 8, broken periods	2,316 34	
Temporary guards	1,393 80	
	23,175 86	
Uniforms.		
Buttons, coat, 2 doz	50	
Canvas, 326 yds	31 37	
Caps, hair seal, 1	1 50	
" peaks, 4 doz	13 00	
Chin straps, 2 doz	90	
Capes, 6	36 00	
Fasteners, 1 doz	30	
Felt padding, 81 yds	24 30	
Gloves, 21 prs	21 75	
Boot hooks, 1 M	2 00	
Hooks and eyes, 2 gross	40	
Hair cloth, 30 yds	9 00	
Italian cloth, 27½ yds	23 38	
Khaki serge, 105 yds	114 45	
Leather, dongola, 50½ ft	10 10	
" box calf, 43½ ft	12 98	
" Canadian calf, 24¾ lbs	17 82	
" French calf, 20 lbs	25 00	
" cordovan, 24½ ft	5 64	
" welt, 28 lbs	14 00	
" sheep, 113 ft	11 30	
" tan, 128¾ ft	25 75	
" sole, 200 lbs	54 00	
Lining, sleeve, 77½ yds	17 62	
Rubber tissue, 2 lbs	2 20	
Silk, sewing, ⅛ lbs	2 67	
" buttonhole, ⅛ lbs	56	
Shoe polish, 8 doz	10 80	
Satin, farmers', 108 yds	10 80	
Sateen, 33½ yds	15 10	
Thread, shoe silk, 3¼ lbs	18 01	
Tan shoe dressing, 2 doz	6 00	
Tar felt, 10 sheets	1 00	
Freight and express	7 29	
	547 49	
Mess.		
Baking powder, 3 lbs	54	
Butter, 412 lbs	123 60	

STAFF—Con.		
Mess—Con.		
Eggs, 36 doz	11 50	
Coffee, 10 lbs	4 00	
Ginger, 2 lbs	1 00	
Mustard, 1 lb	60	
Milk, 186½ gals	60 26	
Nutmegs, 2 lbs	1 95	
Pepper, 5 lbs	2 00	
Sugar, granulated, 1,500 lbs	86 00	
Vinegar, 2 gals	1 75	
Tea, 15 lbs	6 00	
	299 20	
MAINTENANCE OF CONVICTS.		
Rations.		
Apples, evaporated, 450 lbs	58 50	
Beef, 37,128 lbs	2,299 47	
Beans, 1,900 lbs	79 80	
Bread, 55,856 lbs	2,113 03	
Barley, pot, 50 lbs	2 00	
Baking powder, 23 lbs	4 14	
" soda, 4 lbs	40	
Corn meal, 300 lbs	10 50	
Corn starch, 2 lbs	20	
Fish, 559 lbs	32 80	
Flour, bags, 16 lbs	48 79	
Molasses, 1 gal	95	
Onions, 150 lbs	9 75	
Potatoes, 81⅞ bush	53 20	
Peas, split, 298 lbs	14 90	
Pork, 3,479 lbs	347 90	
Pepper, 70 lbs	28 00	
Prunes, 425 lbs	52 50	
Rolled oats, 2,564 lbs	102 40	
Rice, 350 lbs	19 25	
Sugar, brown, 2,100 lbs	115 50	
Salt, 26 sacks	23 40	
Syrup, 1,035 lbs	41 40	
Tea, 548½ lbs	87 76	
Christmas extras	23 45	
Freight and cartage	22 48	
	5,592 47	
Prison Clothing.		
Buttons, trouser, 37 gross	4 57	
" coat, ½ gross	15	
Buckles, 6 gross	90	
Buckram, 16 yds	5 35	
Denim, 623 yds	138 62	
Duffle, 18 yds	24 30	
Galatea, 1,104½ yds	149 11	
Gloves, 2 doz. prs	3 50	
Insole felt, 23⅝ lbs	25 72	
Leather, moccasin, 320 lbs	134 40	
" wax upper, 135 lbs	56 70	
" welt, 34 lbs	17 00	
" sole, 1,201 lbs	287 63	
Moth balls, 1 lb	10	
Moose skins, 5	41 50	
Oil, neatsfoot, 1 gal	1 75	
Rivets, shoe, 90 lbs	7 65	
Thread, linen, 3 lbs	6 75	
Tacks, shoe, 11 lbs	1 26	
" lasting, 3 gross	2 25	

ALBERTA.—*Continued.*

MAINTENANCE OF CONVICTS—Con.	
Prison Clothing—Con.	
Underclothing, 43 doz	193 07
Yarn, 250 lbs	111 25
Freight and cartage	39 11
	1,252 64
Hospital.	
Ambulance, use of	1 00
Boxes, chip, 2 doz	20
Corks, ½ gross	17
Drugs and medicines	147 02
Eggs, 6 doz	2 10
Glasses, 2 prs	25
Milk, 229½ gals	74 74
Keep of prisoner in city hospital	33 00
Sponge, 1	1 00
Surgical instruments	41 94
Freight and express	2 00
	303 42
DISCHARGE EXPENSES.	
Freedom Suits.	
Buttons, coat, 8 gross	4 00
Collars, 5 doz	5 00
Cap, 1	75
Flannel, 60½ yds	4 96
Hats, 4½ doz	25 00
Handkerchiefs, 3 doz	1 50
Luster, 8 yds	4 00
Lining, ¾ yd	12
Shirts, 4 doz	22 00
Ties, 3 doz	3 75
Freight	3 24
	74 32
Convict Travel Allowance.	
Allowance to 43 men	629 15
Taking men to train at Strathcona	24 50
	653 65
WORKING EXPENSES.	
Heat, Light and Water.	
Coal, 454 tons	1,361 99
Lamps, electric, 18 doz	47 28
Light account	575 50
Water "	238 46
Stove wicks, 8	35
	2,223 58
Maintenance of Buildings and Machinery.	
Batteries, 1 doz	6 00
Cord, electric, 32 ft	1 36
Dry battery, 1	50
Emery cloth, 12 qrs	12 00
Grates, stove, 5	5 63
Kreso, 20 gals	22 00

WORKING EXPENSES—Con.	
Maintenance of Buildings and Machinery.	
Locks, pad, 10	3 45
" desk, 1	1 00
" cylinder, 1	1 50
Lye, 8 doz. tins	9 60
Metal polish, 1 can	30
Paint, 1 lb	20
Paper, asbestos, 11	1 10
" toilet, 2 cases	10 68
Plug, 1	10
Rosette, 1	25
Soap, mill, 2,187 lbs	109 35
" laundry, 864 lbs	34 56
Soda, washing, 729 lbs	21 87
Sawdust, 2 loads	2 25
Sapolio, 1 box	4 50
Sockets, brass, 2	60
Stoves, 2	61 00
Washers, 1 doz	25
Castings, 3	9 00
Cotton waste, 50 lbs	6 25
Gauge glasses, 11	1 40
Packing, red, 3½ lbs	2 19
" gasket, ¾ lb	57
" asbestos, 1½ lbs	57
Freight	28 74
	358 77
Chapels, School and Library.	
Organ and stool	50 00
Music books, 1 doz	12 00
Readers, 2½ doz	5 71
Scribblers, 8 doz	3 20
Subscriptions to magazines	17 95
Duty	4 00
Freight	3 79
	96 65
Office Expenses.	
Subscriptions to papers	8 00
Dials for watchman's clock, 2 boxes	4 04
Labels, 1,000	3 25
Printing	146 19
Postage	22 00
Stationery	39 23
Telephones	45 28
Telegrams	31 96
Seals, 3 boxes	25
Post office box, rent of	5 50
Subscriptions to papers	4 00
Premium on officer's bonds	24 00
Freight	44 67
	378 37
INDUSTRIES.	
Farm.	
Axle grease, 1 doz	1 50
Bran, sacks, 2	2 20
Brush, horse, 1	1 90
Backband, 1	1 50
Blankets, horse, 2	3 70
Crupper strap, 1	1 50
Hay, 1 ton	10 50
Handles, axe, 2 doz	4 80

ALBERTA.—*Continued.*

INDUSTRIES—Con.	
Farm—Con.	
Harness, cart, 1 set	24 00
Horse, 1	250 00
Harness oil, 1 gal	2 00
Manure forks, 6	8 10
Oil, neatsfoot, 1 qt	55
Oats, 142 bush	48 16
Seeds	14 65
Soap, harness, 1 cake	25
Straw, 1 load	2 00
Salt, 50 lbs	65
Trace chains, 1 pr	1 75
Wheels, hay cart, 2 sets	50 00
	429 26
Trade Shops.	
Awls, assorted, 3 gross	5 27
Acid, muriatic, 1 qt	50
Axes, bench, 2	3 25
Brushes, paint, 9	5 90
Bolts, 4	40
Bits, auger, 6	1 80
Babbit metal, 20 lbs	3 60
Bristles, ¼ lb	6 25
Block, snatch, 1	7 00
Bench screws, 2	1 60
" stops, 2	1 50
Borax, 5 lbs	45
Brass soldering cock, 1	1 75
Castings, sewing machine, 1	50
Cement, rubber, 20 bottles	5 90
Coal, smiths, 2 2/20 tons	23 72
Couplings and bands, 4 sets	1 40
Catches, elbow, 1 doz	90
Chain, 13 lbs	1 56
Clamps, 1 pr	6 25
Cleaning fluid	43
Colours, 6 lbs	1 20
Calks, horseshoe, 13 lbs	1 30
Drills, 2	2 30
" 1 set	1 25
Drawer pulls, 5 doz	2 75
Emery cloth, 4 doz	2 20
" straps, 1 doz	1 40
" wheels, 3	11 25
" powder, 5 lbs	75
Ewers, 1 doz	90
Escutchion, 1 doz	90
Eyelets, 15 M	11 25
Files, 8¾ doz	10 25
Fuse, 106 ft	1 12
Gasoline, 23 gals	10 75
Glass, 18 lights	6 65
Glue, 25 lbs	5 00
Graphite, 1 lb	40
Gauge, M.M., 1	90
" marking, 1	75
Hooks, screw, 1 gross	50
Hammers, claw, 2	2 30
" sledge, 2	2 48
Hinges, 2½ doz	8 75
Handles, shovel, 3 1/12 doz	12 50
" machine hammer, 6	1 00
" hammer, 3	5 10
" bench axe, 1 doz	1 25
" awl, 3 doz	75
" sledge, 2½ doz	8 40
" chisel, 1 doz	1 50
" fork, 2	50
" pick, 1 doz	3 60

INDUSTRIES—Con.	
Trade Shops—Con.	
Handles, soldering iron, 1	15
" saw, 3 doz	1 50
Hose, wire bound, 200 ft	44 00
Heel shaves, 3	3 35
Iron, bar, 10,123 lbs	381 46
" band, 381 lbs	13 57
" galvanized, 1,827 lbs	142 77
" sheet, 315 lbs	20 81
Jointer, 1	25
Knives, putty, 6	1 50
Knitting machine, parts for	11 15
Leather, kangaroo, 20 3/4 lbs	12 50
Locks, chest, 6	2 40
" drawer, 1 doz	4 80
" door, 1 doz	4 80
Lumber, oak, 16 ft	1 92
" cedar, 1,329 ft	86 23
" spruce, 3,666 ft	84 61
" tamarac, 256 ft	7 55
" pine, 4,727 ft	234 84
Lasts, 5½ doz. prs	35 90
Lines, masons', 2	70
" cod, 2	75
Measures, tape, 1 doz	1 00
Mortice machine chisels, 1 doz	13 00
Mallets, 3	1 35
Needles, sewing machine, 4 4/8 gross	13 92
" sewing, 50 papers	1 25
Nails, shoe, 11 lbs	66
" wire, 3 lbs	48
" horseshoe, 15 lbs	2 20
" finishing, 2 kegs	9 65
Nozzles, 2	1 50
Nuts, assorted, 17 lbs	2 19
Nail sets, 5	50
Oil, 3 in 1, 7 bots	1 50
" cylinder, 5 gals	3 75
" sperm, 1 gal	1 65
" seal, 2 qts	60
Pipe, 1 pce	40
Powder blasting, 7 lbs	2 20
Paint, ½ gal	2 75
Paste, Parisian, 12 lbs	3 00
Planes, 6	20 75
Pattern, 1	15
Plumb bobs, 6	90
Pail ears, 6 gross	2 00
Pencils, carpenters', 3 doz	1 08
Paste, 1 box	20
Paper, tailors', 3 rolls	8 30
Rivets, turned, 12 lbs	2 78
" iron, 8 lbs	90
Rakes, 1	75
Rasps, shoe, 1 doz	2 40
Resin, 3 lbs	30
Rules, 2 ft., 15	7 05
Saws, buck, 1	2 00
Screws, wood, 8 gross	2 60
" brass, 6 gross	1 80
" zinc, 1 gross	1 25
Steel, Jessop's, 21½ lbs	3 23
" machine, 491 lbs	34 93
" cast, 61½ lbs	9 23
" spring, 23 lbs	1 38
" octagon, 42 lbs	6 31
Sandpaper, 12 qrs	3 60
Sand screen, 73 ft	16 90
Subscription to Tailor and Cutter	3 00
Sewing machines, 3	138 80
Square, try and mortice, 1	1 25
Sledge, stone, 1	1 20
Slabs	27 30

ALBERTA.—*Continued.*

INDUSTRIES—Con.

Trade Shops—Con.

Sewing machine, parts for	10
Soldering iron, 1	1 35
Screwdriver, 1	90
Stain, 1 gal.	2 20
Staples, 2 lbs.	45
Saws, 5	10 00
Scissors, 6 prs.	8 25
Solder, 65¼ lbs.	15 66
Striper's brick, 6	1 20
Sash rollers, 12	25
Saw set, 1	1 00
Steel, 1	95
Sheves, 1	50
Tin, 12 sheets	3 45
" 2 boxes	18 10
" dairy, 200 lbs.	24 00
Thread, shoe, 5 lbs.	4 00
" cotton, 6 doz.	2 85
" linen, ½ lb.	90
Tacks, cut, 6 papers	25
Thimbles, ½ doz.	25
Tinsmith's tools	230 60
Trowels, pointing, ½ doz.	2 10
" brick, ½ doz.	7 50
Tapeline, steel, 1	9 00
Tape, electric, 2 rolls	80
Valve plunger, 1	60
Vise, blacksmith's, 1	18 00
Wire, cloth, 100 ft.	2 50
" iron, 75 lbs.	4 13
" stovepipe, 5 lbs.	50
" electric, 250 ft.	6 00
" steel, 2 lbs.	20
Washers, 10 lbs.	1 50
Wax, shoe, 5 lbs.	40
" bee's, 4 lbs.	1 80
Zinc, 55 lbs.	6 05
Containers	50
Freight and cartage	10 83
	2,154 85

Coal Mine.

Services taking levels	57 00
Moulds, 2	36 00
Set car wheels	10 00
Castings, 116 lbs.	5 80
Miners' lamps, 6	1 50
Picks, 6	3 60
	103 90

EQUIPMENT.

New Machinery.

Belting, 72 ft.	18 93
Stop cock, 1	50
Drill power, feed and back gear, chuck vise and socket, emery grinder and shaft	247 00
Brick moulds, 8	26 00
Rock crusher, 1	466 52
Freight	5 06
	764 01

EQUIPMENT—Con.

Furnishing.

Chairs, 10	20 00
Cotton, 984 yds.	98 40
Drill, 313 yds.	37 56
Oilcloth, 2 pcs.	7 00
Soap, shaving, 17 lbs.	8 50
" castile, 223½ lbs.	21 71
Ticking, 205 yds.	39 98
Towels, 2 doz.	1 20
Freight	40
	234 75

Prison Utensils.

Brooms, floor, 1 doz.	2 25
" hair, 1	1 75
Brushes, shoe, 2 doz.	6 00
" scrub, 2	40
" shaving, 2	60
Baskets, 3	3 25
Bung borer, 1	2 50
Boiler, farmer's, 1	45 00
Bath bricks, 2	25
Crockery	5 35
Cooker, double, 1	1 25
Clothes pins, 6 doz.	50
Clippers, hair, 1 pr.	2 75
Combs, barbers', 1 doz.	2 50
Handle, iron, 1	15
Knives and forks, 6	5 50
Lamp portable	4 00
Mirrors, 2	50
Mops, 3	1 10
Oiler, 1	15
Pails, fibre, 2	80
Pail ears, 6 doz.	81
Razors, 6	7 00
Razor, strops, 1	1 00
" hone, 1	1 00
Rolling pin, 1	25
Strainer, 1	15
Scoop, 1	1 25
Salt and pepper castors, 1 doz.	60
Shovels, 1 doz.	10 80
" snow, 1	5 25
Scissors, barbers', 6 prs.	9 00
Saucers, granite, 1 doz.	1 20
Teapot, 1	75
Tumblers, 1 doz.	1 25
Washboards, 2	1 00
Wheelbarrows, iron, 7	54 50
Wringer rubbers, 2	2 25
Wringer, 1	9 50
Whisks, 2½ doz.	7 50
Freight	3 75
	205 36

Buildings.

Brick, 8 M	80 00
Blue prints	7 39
Burning kiln (labour)	87 00
Bushings and pieces	4 79
Cement, 627 bbls.	2,310 88
Colours, 10 lbs.	2 15
Couplings, 46	3 72
Elbows, 6½ doz.	6 17
Electric fixtures	26 29
Glass, lights 282	49 50

ALBERTA.—*Continued.*

EQUIPMENT—Con.	
Buildings—Con.	
Gravel, 442 yds	312 60
Hinges, strap, 80 prs	15 75
Hose bibs, 6	6 95
Iron, corrugated, 10 sheets	10 00
" bar, 247 lbs	11 95
Installing electric bell	11 25
Japan, 5 gals	4 25
Lock set, 1	1 45
Lead, white, 1,000 lbs	85 00
Lumber, tamarac, 1,451 ft	70 93
" spruce, 15,364 ft	370 30
" shiplap, 160 ft	4 64
" fir, 8,755 ft	245 93
" sheeting, 200 ft	4 60
" pine, 1,634 ft	98 04
Lime, 508⅔ bush	297 60
Nails, wire, 12 kegs	45 90
" slating, 10 lbs	75
Oil stain, ½ gal	90
Pipe, galvanized iron, 421⅓ ft	31 83
" iron, 3,050¾ ft	114 50
Plugs, 38	92
Putty, 150 lbs	6 50
Paints	14 65
Pullies, axle, 8 doz	14 70
Plaster Paris, 1 bbl	4 25
Rock, crushed, 170 yds	414 38
Registers, 3	5 25
Ridge coping, 16 ft	1 60
Roofing pitch, 5,380 lbs	99 53
" felt, 1,490 lbs	48 42
" caps, 10 lbs	1 25
Resin sized paper, 8 rolls	4 80
Rivets, 117 lbs	11 70
Sawing lumber	40
Sand, 60 yds	90 00
EQUIPMENT—Con.	
Buildings—Con.	
Steel reinforcing	2,425 00
Shelac, 2 gals	7 75
Sash lifts, 6	30
Spring bolts, 6	90
Shiplap, 600 ft	15 60
Tees, 2 doz	2 67
Tarred felt, 15 rolls	27 46
Transom rod, 1	75
Valve globe, 1	2 25
Varnish, 1 qt	90
Freight	125 79
Containers	50
	7,651 23
MISCELLANEOUS.	
Advertising and Travel.	
Travelling expenses	607 55
Advertising	84 28
	691 83
Special.	
Warden's residence, allowance	600 00
Cartage on trunks	1 00
	601 00
	47,802 61

ALBERTA.

RECAPITULATION.	$ cts.	$ cts.
Staff—		
Salaries and retiring allowances	23,175 86	
Uniforms and mess	846 69	
		24,022 55
Maintenance of Convicts—		
Rations	5,592 47	
Clothing and medicines	1,556 06	
		7,148 53
Discharge Expenses—		
Freedom suits and allowances	737 97	
		737 97
Working Expenses—		
Heat, light and water	2,223 58	
Maintenance of buildings and machinery	358 77	
Chapels, schools and library	96 65	
Office expenses	378 37	3,057 37
Industries—		
Farm	429 26	
Trade shops	2,154 85	
Coal mine	103 90	
		2,688 01
Prison Equipment—		
Machinery	764 01	
Furnishings	234 75	
Utensils and vehicles	205 36	
Land, buildings and walls	7,651 23	
		8,855 35
Miscellaneous—		
Advertising and travel	691 83	
Special	601 00	
		1,292 83
Total		47,802 61

APPENDIX L.

LIST OF OFFICERS

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
J. M. Platt, M.D	Warden	Methodist	Apr. 18, 1840	May 17, 1899	May 17, 1899	$ 2,600
*D. O'Leary	Deputy warden	Roman Catholic	Oct. 15, 1853	Aug. 9, 1897	Aug. 9, 1897	1,500
D. Phelan, M.D	Surgeon and supt. of asylum for insane	" "	Sept. 8, 1854	" 4, 1897	" 4, 1897	2,400
W. S. Hughes	Acct., etc	Presbyterian	June 2, 1861	Jan. 13, 1893	Feb. 13, 1903	1,700
Rev. A. W. Cooke, M.A	Chaplain	Church of England	Sept. 13, 1841	Nov. 1, 1903	Nov. 1, 1903	1,200
Rev. M. McDonald	Chaplain	Roman Catholic	Aug. 4, 1853	Sept. 30, 1899	Sept. 30, 1899	1,200
J. R. Forster	Warden's clerk	Church of England	" 14, 1875	July 1, 1894	Jan. 1, 1898	900
T. W. Bowie	Storekeeper	Presbyterian	Apr. 6, 1841	Aug. 5, 1897	Aug. 5, 1897	1,000
T. A. Keenan	Assistant storekeeper	Roman Catholic	" 16, 1864	" 4, 1897	" 4, 1897	700
W. H. Derry	Engineer	Congregationalist	July 12, 1847	Sept. 1, 1897	Sept. 1, 1897	1,200
F. Hornibrook	Assistant engineer	Church of England	Dec. 15, 1855	Sept. 1, 1892	Feb. 1, 1907	700
C. Baylie	Electrician	Congregationalist	Jan. 19, 1869	Oct. 1, 1890	Oct. 1, 1890	900
R. McDonald	Assistant electrician	Roman Catholic	Mar. 8, 1852	June 1, 1894	June 1, 1894	700
W. J. McLeod	Steward, etc	Presbyterian	Aug. 7, 1868	Jan. 1, 1896	Apr. 1, 1903	1,000
J. Saunders	Assistant steward, etc	Presbyterian	Nov. 30, 1859	Aug. 1, 1899	Nov. 1, 1903	700
W. A. Gunn	Hospital overseer, etc	Church of England	Feb. 16, 1845	June 1, 1890	June 1, 1890	900
H. S. Begg	Assistant overseer, etc	Church of England	Oct. 27, 1879	Oct. 1, 1902	Oct. 1, 1902	700
F. W. Dickinson	Supt. cordage industry	Presbyterian	June 25, 1864	Dec. 1, 1902	Dec. 1, 1902	1,200
R. A. Caughey	Asst. Supt. cordage industry	Presbyterian	Jan. 23, 1870	Nov. 1, 1903	Jan. 1, 1907	800
Rose A. Fahey	Matron	Roman Catholic	Aug. 15, 1849	Mar. 6, 1886	Mar. 6, 1886	600
Mary Smith	Deputy matron	Presbyterian	June 4, 1852	June 1, 1889	June 1, 1889	450
R. J. Burns	Chief trade Instructor	Church of England	July 23, 1855	" 1, 1895	July 1, 1903	1,000
J. A. McCaugherty	Farm instructor	Presbyterian	Dec. 22, 1865	Apr. 1, 1893	Apr. 1, 1893	800
D. J. McCarthy	Asst. farm instructor	Roman Catholic	Jan. 4, 1867	Feb. 9, 1901	Mar. 15, 1902	700
H. L. Walker	Blacksmith instructor	Church of England	Mar. 25, 1865	Apr. 3, 1897	Apr. 3, 1897	800
Jas. Tweddell	Tailor instructor	Methodist	Jan. 22, 1876	Mar. 23, 1903	Mar. 23, 1903	800
Jas. Lawlor	Stonecutter instructor	Roman Catholic	Apr. 15, 1869	Sept. 18, 1896	Apr. 1, 1903	800
P. M. Beaupre	Quarry instructor	Roman Catholic	July 29, 1860	Jan. 10, 1885	Mar. 27, 1905	800
Robt. Paynter	Shoemaker instructor	Congregationalist	Jan. 22, 1873	Nov. 1, 1904	Apr. 1, 1905	800
T. A. Davidson	Mason instructor	Presbyterian	Mar. 26, 1872	July 1, 1902	Mar. 16, 1908	800
Alex. Atkins	Chief keeper	Presbyterian	Apr. 13, 1857	" 1, 1878	" 1, 1903	1,000
Wm. Holland	Chief watchman	Church of England	Mar. 26, 1850	Aug. 1, 1889	Nov. 1, 1906	800
W. J. Calvert	Industrial keeper	Presbyterian	Sept 9, 1866	Nov. 1, 1900	Mar. 1, 1907	700
J. A. Rutherford	Gate keeper, etc	Methodist	Feb. 17, 1851	Mar. 1, 1884	Feb. 1, 1908	700
‡J. Kennedy	Keeper	Roman Catholic	July 12, 1852	May 1, 1870	Sept. 24, 1895	700
Chs. Bostridge	"	Church of England	Nov. 20, 1848	Apr. 10, 1882	Aug. 1, 1899	700
J. Bannister	"	Methodist	Sept. 13, 1851	May 23, 1885	Aug. 1, 1899	700
Jas. Doyle	"	Roman Catholic	Oct. 19, 1860	" 27, 1885	" 1, 1899	700
Patk. Madden	"	" "	Apr. 27, 1864	Aug. 1, 1889	" 1, 1899	700
T. Fowler	"	" "	Mar. 22, 1860	" 1, 1889	Jan. 1, 1907	700
E. R. Davis	"	Methodist	" 29, 1850	Feb. 1, 1890	Aug. 1, 1907	700
J. Givens	"	Roman Catholic	June 6, 1866	June 7, 1892	Mar. 1, 1908	700
C. S. Wheeler	"	Church of England	Oct 7, 1852	July 23, 1892	" 1, 1908	700
J. J. Lawless	Watchman	Roman Catholic	Apr. 3, 1874	Nov. 1, 1906	Nov. 1, 1906	650

J. V. Donaghue	Watchman	Roman Catholic	July	1880	Oct.	1, 1907	Oct.	1, 1907	650
Don. A. Curtis	"	Presbyterian	March	4, 1873	Nov.	1, 1907	Nov.	1, 1907	650
Geo. P. Nolan	"	Roman Catholic	Apr.	3, 1872	"	1, 1907	"	1, 1907	650
Edw. I. McCue	"	" "	Jan.	5, 1883	June	1, 1908	June	1, 1908	650
Richard McGeein	"	" "	June	8, 1873	July	1, 1908	July	1, 1908	650
A. McConville	Guard	" "	July	4, 1862	"	1, 1885	"	1, 1885	600
Wm. Ryan	"	" "	Nov.	14, 1853	May	31, 1890	May	31, 1890	600
Geo. McCauley	"	" "	Sept.	19, 1862	Aug.	24, 1892	Aug.	24, 1892	600
Wm. Kenney	"	Methodist	Nov.	5, 1858	Mar.	1, 1893	Mar.	1, 1893	600
Jno. O'Neil	"	Roman Catholic	Dec.	5, 1860	Feb.	1, 1894	Feb.	1, 1894	600
Jas. Bennett	"	Church of England	Jan.	8, 1854	Feb.	14, 1894	"	14, 1894	600
R. Corby	"	Roman Catholic	May	9, 1869	May	7, 1894	May	7, 1894	600
Jno. Hughes	"	" "	Nov.	4, 1869	Feb.	22, 1895	Feb.	22, 1895	600
Sam. McCormack	"	Presbyterian	"	3, 1855	July	26, 1895	July	26, 1895	600
G. H. T. Marsh	"	Church of England	Aug.	23, 1866	Sept.	25, 1895	Sept.	25, 1895	600
T. E. Hennessy	"	Roman Catholic	Nov.	13, 1861	"	26, 1895	"	26, 1895	600
R. D. Dowsley	"	Presbyterian	Dec.	3, 1858	May	6, 1896	May	6, 1896	600
R. Bryant	"	Methodist	Feb.	12, 1852	Jan.	1, 1898	Jan.	1, 1898	600
Geo. Sullivan	"	Roman Catholic	Apr.	20, 1875	Aug.	20, 1898	Aug.	20, 1898	600
W. H. Matthews	"	Church of England	Oct.	20, 1865	"	1, 1899	"	1, 1899	600
Jas. McWaters	"	Methodist	Sept.	1, 1861	"	1, 1899	"	1, 1899	600
Dan. Germain	"	"	Apr.	4, 1870	"	1, 1899	"	1, 1899	600
J. McQuade	"	"	June	24, 1859	Dec.	1, 1899	Dec.	1, 1899	600
Ed. C. Walsh	"	Roman Catholic	Sept	2, 1878	Nov.	1, 1900	Nov.	1, 1900	600
S. N. Watts	"	Church of England	Apr.	18, 1866	"	1, 1900	"	1, 1900	600
P. Johnston	"	Methodist	May	17, 1871	"	1, 1900	"	1, 1900	600
R. M. Davis	"	Church of England	Apr.	7, 1878	"	1, 1900	"	1, 1900	600
C. H. Gray	"	Methodist	Dec.	8, 1878	Feb.	15, 1902	Feb.	15, 1902	600
Geo. O. Aiken	"	"	Apr.	5, 1873	Nov.	1, 1902	Nov.	1, 1902	600
Geo. Doyle	"	Roman Catholic	May	13, 1871	"	1, 1903	"	1, 1903	600
Jas. A. Fegg	"	Church of England	"	31, 1870	July	1, 1904	July	1, 1904	600
W. A. MacDonell	"	Roman Catholic	Aug.	3, 1873	Nov.	1, 1904	Nov.	1, 1904	600
Jno. Berrigan	"	"	July	8, 1867	"	1, 1904	"	1, 1904	600
Robt. Aiken	"	Methodist	Dec.	22, 1866	"	1, 1904	"	1, 1904	600
Edw. Cowan	"	Church of England	Sept.	25, 1869	July	1, 1905	July	1, 1905	600
H. J. Powell	"	Methodist	Aug.	24, 1873	Aug.	1, 1905	Aug.	1, 1905	600
M. J. Walsh	"	Roman Catholic	Mar.	4, 1875	"	1, 1905	"	1, 1905	600
B. R. Watson	"	Church of England	Dec.	10, 1861	"	1, 1905	"	1, 1905	600
J. A. Potter	"	Presbyterian	Nov.	14, 1874	Jan.	1, 1906	Jan.	1, 1906	600
J. B. O'Driscoll	"	Roman Catholic	Apr.	17, 1875	"	1, 1906	"	1, 1906	600
Wm. Tatton	"	Church of England	Nov.	19, 1872	Apr.	1, 1906	Apr.	1, 1906	600
J. S. McPherson	"	Presbyterian	Feb.	21, 1872	June	1, 1906	June	1, 1906	600
J. A. Wilson	"	"	Aug.	5, 1875	"	1, 1906	"	1, 1906	600
F. J. Doyle	"	Roman Catholic	Sept.	9, 1877	Aug.	1, 1906	Aug.	1, 1906	600
P. Stover	Stable guard	Methodist	Apr.	6, 1854	Sept.	1, 1894	June	30, 1898	600
Jas. Weir	"	"	Aug.	4, 1856	May	4, 1896	"	30, 1898	600
W. W. Cook	"	"	Mar.	25, 1865	Sept.	1, 1901	May	25, 1906	600
C. H. Fenning	Fireman	Church of England	July	26, 1860	Aug.	1, 1899	Aug.	1, 1899	600
Fr. McGeen	"	Roman Catholic	Dec.	6, 1874	Feb.	15, 1902	Feb.	15, 1902	600
M. J. Kennedy	Messenger	" "	Apr.	18, 1857	Apr.	1, 1872	May	1, 1884	600

* Inspector Dominion Police, Deember 2, 1882, to August 9, 1897.

‡ Appointed, May 1, 1870, resigned March 31, 1872, re-appointed January 1, 1877.

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
Beauchamp, Oscar	Warden	Roman Catholic	June 22, 1851	Feb. 17, 1899	Mar. 4, 1904	$2,400
Pratt, George A	Deputy warden	Anglican	Nov. 28, 1862	" 20, 1899	" 4, 1904	1,500
Allaire, Adolphe, M.D	Surgeon	Roman Catholic	Aug. 31, 1870	Jan. 30, 1902	Jan. 30, 1902	1,600
Malepart, George S	Accountant	" "	May 23, 1849	Oct. 9, 1880	June 1, 1882	1,400
Harel, Rev. L. O	Roman Catholic Chaplain	" "	Aug. 30, 1847	Apr. 28, 1887	Apr. 28, 1887	1,200
Rollit, Rev. John	Protestant Chaplain	Anglican	Apr. 9, 1841	Oct 25, 1895	Oct. 25, 1895	1,200
Marchand, Lucien	Engineer	Roman Catholic	Nov. 24, 1859	" 1, 1907	" 1, 1907	1,000
Jobin, Eusèbe	Steward & Baker	" "	Oct. 28, 1875	Sept. 1, 1902	Aug. 1, 1907	1,000
Reneault, George Jos	Warden's clerk etc	" "	Nov. 16, 1868	Jan. 14, 1903	" 1, 1906	1,000
Thérien, Phedime	Storekeeper	" "	Dec. 6 1858	May 28, 1907	May 28 1907	900
Fatt, H. Cecil	Assistant storekeeper	Anglican	Apr 14, 1869	Aug. 22, 1894	Dec. 1, 1899	700
O'Shea, David	Hospital overseer etc	Roman Catholic	Mar. 2, 1860	" 23, 1882	Aug. 1, 1906	900
Leclair, Eugène	Electrician	" "	May 20, 1871	Jan. 1, 1899	July 1, 1905	800
Aubé, William	Assistant steward and baker	" "	Oct. 5, 1874	July 1, 1901	Nov. 1, 1906	700
Nixon, George	Gatekeeper and Armourer	Anglican	" 22, 1846	Aug. 6, 1883	Aug. 1, 1906	700
Leger, George	Chief trade instructor	Roman Catholic	May 18, 1867	Oct. 1, 1906	Oct. 1, 1906	1,000
Bertrand, Elzéar	Mason instructor	" "	Feb. 9, 1859	Aug. 1, 1885	May 1, 1907	800
Lortie, Vincent	Shoemaker instructor	" "	" 14, 1854	July 15, 1895	July 15, 1895	800
Prevost, William	Quarry instructor	" "	May 18, 1860	Aug. 31, 1896	Oct. 1, 1896	800
Desjardins, Rodrigue	Stonecutter instructor	" "	Feb. 23, 1871	Oct. 1, 1903	Apr. 20, 1905	800
Bisson, Vincent	Tinsmith instructor	" "	June 24, 1850	July 12, 1884	Feb. 1, 1900	800
Leblanc, Edmond	Blacksmith instructor	" "	Mar. 20, 1861	Apr. 1, 1901	Apr. 1, 1901	800
Cadieux, Oscar	Tailor instructor	" "	Aug. 11, 1864	" 8, 1901	" 8, 1901	800
St. Germain, Napoleon (a)	Carpenter instructor	" "	Mar. 22, 1847	Feb. 1, 1877	Aug. 15, 1902	800
Chartrand, Ubald	Chief keeper	" "	Jan. 1, 1843	Jan. 1, 1878	Apr. 7, 1899	1,200
Gibson, W. W	Chief watchman	Presbyterian	Oct. 23, 1843	Aug. 6, 1886	Aug. 1, 1906	800
Fitzgibbon, J. D	Keeper	Roman Catholic	May, 23, 1860	June 25, 1887	Oct. 11, 1897	700
Desjardins, Joseph	"	" "	Mar. 23, 1876	Oct. 1, 1897	Apr. 7, 1899	700
Blondin, Paul	"	" "	Oct. 2, 1869	" 19, 1896	Feb. 1, 1900	700
Normand, Ludger	"	" "	Sept. 13, 1875	Nov. 2, 1897	July 18, 1902	700
Forster, J. Percy	"	Anglican	Oct. 12, 1874	Sept. 1, 1889	Jan. 1, 1903	700
Charbonneau, Alexandre	"	Roman Catholic	July 1, 1862	July 1, 1898	Feb. 4, 1905	700
Forest, George	"	" "	Mar. 14, 1857	Apr. 24, 1899	Mar. 20, 1905	700
Lesage, Felix	Watchman	" "	July 10, 1846	Aug. 29, 1883	Nov. 1, 1906	650
Charbonneau, George	"	" "	" 13, 1846	June 30, 1888	" 1, 1906	650
Boucher, Eloi	"	" "	Nov. 3, 1861	Dec. 1, 1899	" 1, 1906	650
Leonard, Hormidas	"	" "	Feb. 27, 1864	" 1, 1899	" 1, 1906	650
Clermont, Felix	Guard	" "	June 17, 1863	July 19, 1889	July 19, 1889	600
Desjardins, Abondius	"	" "	" 7, 1863	Nov. 9, 1893	Nov. 9, 1893	600
Lynch, Patrick, J. G	"	" "	Feb. 16, 1870	May 1, 1894	May 1, 1894	600
Greece, William	"	Presbyterian	Mar. 16, 1863	Oct. 1, 1897	Oct. 1, 1897	600
Jolicœur, Edouard	"	Roman Catholic	Apr. 13, 1863	Aug. 2, 1898	Aug. 2, 1898	600
Pepin, Alfred	"	" "	July 15, 1870	" 1, 1898	" 1, 1898	600

Desjardins, Charles	Guard	Roman Catholic	Apr. 2, 1871	Apr. 24, 1899	Apr. 24, 1899	600
Papineau, Odilon	"	" "	Nov. 22, 1864	Aug. 28, 1899	Aug. 28, 1899	600
Trudeau, Alfred	"	" "	May 21, 1864	Dec. 1, 1899	Dec. 1, 1899	600
Filiatreault, Napoleon	"	" "	July 3, 1868	May 4, 1901	May 4, 1901	600
Desormeau, Felix	"	" "	Jan. 17, 1858	Feb. 1, 1901	Feb. 1, 1901	600
Brisebois, H	"	" "	Nov. 7, 1872	Sept. 15, 1901	Sept. 15, 1901	600
Belanger, Edouard	"	" "	" 19, 1870	July 1, 1902	July 1, 1902	600
McDonough, Andrew	"	" "	Mar. 30, 1876	Sept. 1, 1903	Sept. 1, 1903	600
Therrien, George	"	" "	Nov. 8, 1877	June 15, 1904	June 15, 1904	600
Labrecque, J. Emile	"	" "	Feb. 17, 1874	Apr. 27, 1905	Apr. 27, 1905	600
Lauzon, Jean	"	" "	Mar. 16, 1866	July 1, 1905	July 1, 1905	600
Lahaie, Aldrige	"	" "	Dec. 11, 1868	" 1, 1905	" 1, 1905	600
Paquette, Joseph	"	" "	Nov. 20, 1860	Oct. 1, 1905	Oct. 1, 1905	600
Hogue, Damase	"	" "	Dec. 9, 1873	" 1, 1905	" 1, 1905	600
Dufresne, Adelard	"	" "	" 27, 1882	Aug. 1, 1906	Aug. 1, 1906	600
Barbeau, Emilien	"	" "	Nov. 29, 1871	" 1, 1906	" 1, 1906	600
Roger, Urgèle	"	" "	July 18, 1879	Sept. 1, 1906	Sept. 1, 1906	600
Murphy, J. W. R	"	" "	Mar. 18, 1885	Nov. 1, 1906	Nov. 1, 1906	600
Proulx, Medor	"	" "	" 9, 1879	" 1, 1906	" 1, 1906	600
Proulx, Alfred	"	" "	Apr. 25, 1874	Feb. 1, 1907	Feb. 1, 1907	600
Laskey, F. W. (b)	"	Anglican	May 10, 1879	Sept. 1, 1903	June 1, 1907	600
Deguire, Ovide	"	Roman Catholic	" 5, 1873	" 1, 1907	Sept. 1, 1907	600
Bezeau, Albert	"	" "	Sept. 2, 1883	Nov. 1, 1907	Nov. 1, 1907	600
Byrne, Thomas J	"	" "	Dec. 14, 1876	" 1, 1905	Mar. 1, 1909	600
Rodier, Emilien	"	" "	July 20, 1873	Oct. 1, 1907	" 1, 1909	600
Jubinville, Alfred	Fireman	" "	Dec. 29, 1866	Dec. 9, 1901	Dec. 9, 1901	600
Robertson, Robert J	"	Anglican	June 20, 1880	Nov. 2, 1908	Nov. 2, 1908	600
Taillon, Charles	Messenger	Roman Catholic	Aug. 18, 1838	May 1, 1880	May 1, 1880	600
Cloutier, Isaie	Stable guard	" "	Dec. 25, 1843	Nov. 4, 1881	Nov. 4, 1881	600
Ouimet, Damase	" "	" "	Nov. 15, 1862	Apr. 24, 1899	Apr. 24, 1899	600

(a) Removed January 24th, 1881. Reappointed August 15th, 1902.

(b) Resigned March 31st, 1905. Reappointed June 1st, 1907.

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
J. A. Kirk	Warden	Presbyterian	Mar. 1, 1837	Dec. 12, 1899	Dec. 12, 1899	$ 2,200
A. B. Pipes	Deputy warden	Church of England	" 31, 1853	June 25, 1889	June 6, 1901	1,500
E. T. Gaudet, M.D.	Surgeon	Roman Catholic	Sept. 17, 1857	Dec. 14, 1907	Dec. 14, 1907	1,500
C. H. Martin	Accountant	Methodist	Feb. 5, 1858	Aug. 4, 1897	Apr. 1, 1903	1,200
Rev. A. D. Cormier	Chaplain	Roman Catholic	Nov. 27, 1854	Dec. 1, 1889	Dec. 1, 1889	1,000
Rev. B. H. Thomas	"	Baptist	May 22, 1865	Aug. 1, 1906	Aug. 1, 1906	1,000
C. S. Starratt	Storekeeper and warden's clerk	"	Nov. 10, 1858	Sept. 1, 1905	Sept. 1, 1905	800
James A. Piercy	Engineer	Methodist	Aug. 15, 1852	May 12, 1885	May 12, 1855	1,000
[1]Angus M. McDonald	Steward	Roman Catholic	Nov. 26, 1865	June 1, 1891	April 1, 1903	900
G. B. Papineau	Hospital overseer	" "	June 22, 1856	Jan. 1, 1886	June 1, 1898	900
Elizabeth McMahon	Matron	" "	Apr. 7, 1870	" 21, 1898	May 1, 1899	600
Elizabeth Cumming	Deputy matron	Presbyterian	Jan. 8, 1848	Feb. 8, 1900	Feb. 8, 1900	450
John Downey	Blacksmith instructor	Baptist	Mar. 17, 1840	May 1, 1868	May 1, 1868	800
Wm. R. Burns	Tailor instructor	Roman Catholic	" 14, 1858	" 10, 1891	" 10, 1891	800
L. H. Chambers	Carpenter instructor	" "	Apr. 20, 1853	May 1, 1886	Dec. 1, 1900	800
Jos. T. Leblanc	Quarry instructor	" "	June 29, 1849	" 1, 1883	Oct. 1, 1901	800
A. T. Hicks	Farm instructor	Baptist	Aug. 11, 1856	Sept. 25, 1901	Sept. 25, 1901	800
W. A. Sherrard	Stone cutter instructor	Presbyterian	Apr. 13, 1876	" 1, 1905	" 1, 1905	800
John J. Kane	Mason instructor	Roman Catholic	Oct. 15, 1866	Jan. 21, 1907	Jan. 21, 1907	800
W. J. Foran	Shoe instructor	" "	Nov. 15, 1870	Mar. 12, 1907	Mar. 12, 1907	800
L. S. Hutchinson	Chief keeper	Church of England	Oct. 18, 1874	Feb. 1, 1893	May 1, 1901	900
Willard Lawrence	Chief watchman	" "	May 14, 1849	Sept. 27, 1899	Aug. 1, 1906	800
John Corcoran	Watchman	Roman Catholic	Apr. 12, 1847	July 1, 1880	Jan. 1, 1907	650
A. L. Belliveau	"	" "	Oct. 9, 1860	" 15, 1901	" 1, 1907	650
William Alexander	Keeper	Methodist	Aug. 31, 1846	Jan. 1, 1880	" 1, 1898	700
A. A. Allain	"	Roman Catholic	Feb. 1, 1855	" 10, 1883	Mar. 1, 1903	700
Thomas Welsh	"	" "	Jan. 1, 1859	Dec. 1, 1896	July 1, 1903	700
Chas. S. Elsdon	"	Methodist	Sept. 4, 1869	July 23, 1895	Mar. 1, 1907	700
James Luther	Guard	"	June 1, 1840	May 9, 1882	May 9, 1882	600
T. F. Gillespie	"	Church of England	July 3, 1873	Oct. 18, 1891	Oct. 1, 1892	600
N. A. Burden	"	" "	" 25, 1852	" 1, 1892	Feb. 1, 1893	600
John McCaull	"	Presbyterian	Mar. 1, 1850	July 23, 1894	July 23, 1894	600
Sinclair McDougall	"	"	Oct. 18, 1871	" 23, 1895	" 23, 1895	600
Arthur Brown	"	"	Sept. 26, 1864	Jan. 1, 1898	Jan. 1, 1898	600
Geo. Drillio	"	"	Apr. 27, 1865	" 1, 1898	" 1, 1898	600
Stephen H. Getson	"	"	Feb. 3, 1873	" 1, 1898	" 1, 1898	600
John McLeod	"	"	Sept. 20, 1860	" 1, 1898	" 1, 1898	600
[2]Patrick Connell	"	Roman Catholic	Aug. 6, 1849	" 1, 1880	Feb. 5, 1899	600
Lauchlin McDonald	"	" "	July 28, 1876	June 1, 1901	June 1, 1901	600
S. A. Palmer	"	Baptist	" 19, 1858	July 1, 1901	July 1, 1901	600
Amos Robinson	"	Methodist	Aug. 22, 1858	" 1, 1901	" 1, 1901	600
[3]D. P. Belliveau	"	Roman Catholic	Jan. 28, 1860	Jan. 14, 1901	Feb. 16, 1905	600
John D. McDonald	"	" "	Aug. 12, 1878	" 1, 1903	Oct. 1, 1906	600

D. H. McIsaac	Guard	Roman Catholic	May	10, 1878	Dec.	15, 1906	Dec.	15, 1906	600
F. C. Bowes	"	Baptist	Sept.	4, 1880	July	1, 1907	July	1, 1907	600
A. W. O'Brien	"	Roman Catholic	Oct.	4, 1875	Mar.	1, 1908	Mar.	1, 1908	600
A. B. Cummings	"	Presbyterian	Dec.	28, 1888	Nov.	1, 1908	Nov.	1, 1908	600
John S. Milton	Stable guard	Baptist	Nov.	22, 1853	May	1, 1894	July	1, 1898	600
Chas. Card	"	"	"	30, 1856	Jan.	1, 1907	Jan.	1, 1907	600
Albert Friel	Messenger	Roman Catholic	"	10, 1872	Aug.	14, 1906	Aug.	14, 1906	600
George Bishop	Fireman	Baptist	June	22, 1862	Oct.	11, 1906	Oct.	11, 1906	600

[1]Resigned March 31, 1894. Reappointed November 1, 1894.
[2]Retired December 31, 1897. Reappointed February 5, 1899.
[3]Resigned December 2, 1903. Reappointed February 16, 1905.

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
A. G. Irvine, I.S.O	Warden	Church of England	Dec. 7, 1837	May 1, 1870	Oct. 13, 1892	$2,200
A. Manseau	Deputy warden	Roman Catholic	Jan. 14, 1858	July 1, 1891	Sept. 2, 1898	1,500
R. W. Neill, M.D	Surgeon	Church of England	May 24, 1869	Sept. 12, 1900	" 12, 1900	1,500
H. Keech	Accountant and storekeeper	Methodist	" 26, 1851	May 1, 1907	May 1, 1907	1,500
Rev. S. W. L. Stewart	Chaplain	"	July 29, 1863	Dec. 1, 1907	Dec. 1, 1907	1,000
Rev. A. Beliveau, D.D	Chaplain	Roman Catholic	Mar. 2, 1870	June 21, 1905	June 21, 1905	1,000
E. Freeman	Steward	Church of England	May 12, 1856	Feb. 1, 1886	Mar. 1, 1903	900
*J. H. Daignault	Hospital overseer	Roman Catholic	Nov. 30, 1867	Aug. 19, 1902	Feb. 14, 1908	900
J. Smith	Engineer	Church of England	Dec. 8, 1848	Dec. 10, 1883	Nov. 1, 1889	1,000
A. R. Mitchell	Chief trade instructor	Presbyterian	Aug. 2, 1844	July 2, 1903	Oct. 1, 1904	1,000
W. R. Grahame	Farm instructor	"	Oct. 19, 1860	" 1, 1891	" 24, 1893	800
T. Miller	Shoemaker instructor	Church of England	Dec. 17, 1857	Nov. 10, 1892	July 23, 1895	800
T. Scott	Tailor instructor	Presbyterian	" 28, 1861	" 10, 1906	Nov. 10, 1906	800
J. McCullough	Mason instructor	"	Apr. 10, 1853	July 15, 1907	July 15, 1907	800
J. French	Chief watchman	Methodist	Oct. 22, 1870	Oct. 1, 1904	Feb. 1, 1907	900
J. Snell	Keeper	Presbyterian	Aug. 8, 1875	July 2, 1902	May 1, 1905	800
W. C. Abbott	"	Church of England	May 14, 1873	June 1, 1903	" 1, 1905	800
T. Douglas	Guard	" "	Feb. 8, 1869	" 1, 1899	June 1, 1899	700
R. Downie	"	Presbyterian	Aug. 5, 1866	July 7, 1902	July 7, 1902	700
H. W. B. Macdonell	"	Roman Catholic	June 5, 1879	Dec. 14, 1902	Dec. 14, 1902	700
J. Douglass	"	Presbyterian	Nov. 29, 1872	Sept. 1, 1903	Sept. 1, 1903	700
E. Newbury	"	Church of England	" 30, 1875	May 1, 1904	May 1, 1904	700
W. Burt	"	Presbyterian	Mar. 12, 1875	" 1, 1904	" 1, 1904	700
G. Richmond	"	Methodist	Oct. 8, 1870	" 1, 1904	" 1, 1904	700
F. J. Thornhill	"	Roman Catholic	Apr. 24, 1880	Nov. 1, 1904	Nov. 1, 1904	700
W. V. B. Goff	"	Church of England	Dec. 4, 1870	Apr. 1, 1905	Apr. 1, 1905	700
H. Woods	"	" "	Sept. 18, 1870	Jan. 1, 1906	Jan. 1, 1906	700
E. C. Ridley	"	" "	" 17, 1877	Apr. 1, 1906	Apr. 1, 1906	700
W. Skeoch	"	Presbyterian	" 11, 1880	May 1, 1906	May 1, 1906	700
H. F. Norman	"	Church of England	Apr. 30, 1874	June 1, 1906	June 1, 1906	700
A. E. Whish	"	" "	Sept. 5, 1879	Aug. 1, 1906	Aug. 1, 1906	700
L. L. Gauthier	"	Roman Catholic	July 26, 1871	" 1, 1906	" 1, 1906	700
A. Johnston	"	Presbyterian	Apr. 9, 1881	Feb. 1, 1907	Feb. 1, 1907	700
G. E. Brookes	"	Church of England	Feb. 9, 1877	" 1, 1907	" 1, 1907	700
C. Bishop	"	" "	Nov. 4, 1880	" 1, 1907	" 1, 1907	700

*Resigned May 1, 1907. Re-appointed February 14, 1908.

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
Brown, J. C	Warden	Presbyterian	Feb. 13, 1844	Nov. 26, 1907	Nov. 26, 1907	2,200
Carroll, W. J	Deputy warden	Roman Catholic	Mar. 15, 1860	July 23, 1886	Dec. 3, 1907	1,500
DeWolf Smith, W. A	Surgeon	Church of England	Oct. 5, 1859	Nov. 1, 1887	June 30, 1890	1,500
Harvey, J. W	Accountant, etc	" "	Feb. 23, 1856	June 29, 1895	Feb. 27, 1896	1,200
Vert, Rev. A. E	Chaplain	Presbyterian	Nov. 1, 1869	May 16, 1904	May 16, 1904	1,000
Peytavin, Rev. E	"	Roman Catholic	" 6, 1849	June 23, 1903	June 23, 1903	1,000
Robertson, R. J	Storekeeper	Presbyterian	Jan. 28, 1865	Oct. 11, 1887	Jan. 1, 1908	900
Patchell, W. A	Steward	Church of England	Aug. 12, 1862	Aug. 18, 1890	Jan. 1, 1908	900
Stewart, F	Hospital overseer	Presbyterian	" 16, 1852	Apr. 1, 1885	Dec. 6, 1907	900
Disney, H	Chief trade instructor	Church of England	Dec. 17, 1866	Mar. 1, 1895	Oct. 15, 1902	1,000
Currie, Wm	Engineer, etc	Presbyterian	Jun. 5, 1859	July 1, 1908	July 1, 1908	1,000
Mackenzie, Geo	Shoemaker instructor	"	July 4, 1854	Nov. 1, 1883	Nov. 1, 1883	800
Doyle, Jas	Brickmaking instructor	Roman Catholic	Mar. 8, 1862	Oct. 1, 1886	Feb. 1, 1902	800
Imlah, Jno	Mason instructor	Presbyterian	July 20, 1860	May 15, 1900	Nov. 1, 1902	800
Mackenzie, D. C	Tailor instructor	Methodist	Aug. 25, 1868	Mar. 1, 1904	Mar. 1, 1904	800
Dynes, R	Farm instructor	Roman Catholic	Oct. 31, 1867	Jan. 1, 1894	June 1, 1907	800
Lavell, M	Chief watchman	"	June 17, 1867	Mar. 9, 1901	Oct. 1, 1907	900
Glenn, A. V	Watchman	Methodist	Feb. 21, 1878	" 1, 1908	Mar. 1, 1908	750
Walsh, Wm	Keeper	Roman Catholic	Feb. 14, 1864	June 1, 1896	Dec. 6, 1907	800
Sampson, T	"	Methodist	May 25, 1859	Apr. 1, 1890	Jan. 1, 1908	800
Smyth, P	Guard	Roman Catholic	Mar. 17, 1843	Feb. 21, 1879	Feb. 21, 1879	700
Devine, P	"	" "	July 20, 1875	Apr. 8, 1901	Apr. 8, 1901	700
Cameron, W. A	"	Methodist	May 16, 1879	July 1, 1907	July 1, 1907	700
McLure, D	"	Presbyterian	Feb. 23, 1883	Sept. 1, 1907	Sept. 1, 1907	700
Sullivan, M	"	Roman Catholic	Nov. 20, 1887	" 1, 1907	" 1, 1907	700
Cooper, T	"	Presbyterian	May 26, 1883	Dec. 1, 1907	Dec. 1, 1907	700
McGrenera, P	"	Roman Catholic	Dec. 24, 1879	Mar. 1, 1908	Mar. 1, 1908	700
McTavish, D	"	Presbyterian	Jan. 10, 1881	May 1, 1908	May 1, 1908	700
Gray, T. R	"	Church of England	May 7, 1878	Aug. 1, 1908	Aug. 1, 1908	700
McCallum, W. A	Stable Guard	Methodist	Jan. 15, 1874	Dec. 1, 1908	Dec. 1, 1908	700

Name.	Rank.	Creed.	Date of Birth.	Date of First Appointment.	Date of Present Appointment.	Salary.
Matthew, McCauley	Warden	Presbyterian	June 11, 1850	July 1, 1906	July 1, 1906	$ 2,200
[1]Richard Henry Stedman	Deputy warden	Church of England	May 23, 1848	" 1, 1906	" 1, 1906	1,500
Alexander Forin, M.D	Surgeon	Presbyterian	" 24, 1857	" 23, 1906	" 23, 1906	1,200
John Joseph Cashman	Accountant and storekeeper	Roman Catholic	Apr. 15, 1857	Aug. 1, 1906	Aug. 1, 1906	1,200
[2]John McDougall	Chief trade instructor, etc	" "	May 6, 1862	Apr. 5, 1891	" 1, 1906	1,000
Cleopas Turgeon	Engineer, etc	" "	Mar. 11, 1859	July 23, 1906	July 23, 1906	1,000
Rev. Peter Cozanet	Chaplain	" "	July 3, 1881	Sept. 1, 1907	Sept. 1, 1907	800
Rev. David George McQueen	Chaplain	Presbyterian	Dec. 25, 1854	Aug. 4, 1906	Aug. 4, 1906	800
Gertrude Louisa Stedman	Matron	Church of England	July 3, 1856	" 6, 1906	" 6, 1906	500
[3]William Coward	Steward, etc	Methodist	June 18 1855	June 6, 1878	" 1, 1906	900
Sidney J. Truscott	Hospital overseer, etc	"	Dec. 31, 1874	Aug. 15, 1906	" 15, 1906	900
Thomas May	Chief watchman	Presbyterian	Aug. 12, 1860	July 23, 1906	July 23, 1906	900
Frank Urquhart	Tailor instructor	Church of England	Oct. 17, 1862	Aug. 1, 1906	Aug. 1, 1906	800
Matthew Joseph Salzl	Shoemaker instructor	Roman Catholic	Mar. 22, 1884	" 15, 1906	" 15, 1906	800
Frank Pope	Carpenter instructor	Chuch of England	Sept. 18, 1881	July 1, 1907	July 1, 1907	800
John Mann	Brickmaker instructor	Methodist	June 18, 1864	" 10, 1907	" 10, 1907	800
Edgar H. Cummings	Keeper	"	" 28, 1880	Feb. 1, 1907	June 1, 1907	800
Joseph J. Schell	Guard	"	July 1, 1873	June 1, 1907	" 1, 1907	700
Percy M. Oldroyd	"	Church of England	Sept. 12, 1877	Sept. 1. 1907	Sept. 1, 1907	700
George P. Halley	"	Presbyterian	May 10, 1876	Oct. 1, 1907	Oct. 1, 1907	700
James R. Gernon	"	Roman Catholic	" 15, 1875	Aug. 1, 1908	Aug. 1, 1908	700
Charles Wilson	"	Church of England	Mar. 22, 1876	Oct. 1, 1908	Mar. 15, 1909	700
Charles Bernier	"	Roman Catholic	Nov. 25, 1879	Dec. 1, 1908	Dec. 1, 1908	700

[1]Formerly assistant superintendent Penetanguishene reformatory.
[2]Transferred from Dorchester penitentiary staff.
[3]Transferred from Kingston penitentiary staff.

APPENDIX M.

FARM REPORTS

KINGSTON.

STATEMENT of Amount Expended and of Value Received from Farm Produce.

Description.	Quantity.	Rate.	Amount.
Stock on hand, March 31, 1908			$ 9,070.69
Gelding (1)			190.00
Pigs, 1 boar @ $18.00, and 1 @ $10.00	2		28.00
Vegetable and grain seed			71.35
Flower seeds, etc. and bulbs			15.05
Tools			54.72
Binder twine			19.25
Bran			11.00
Coal for threshing			5.31
Kitchen refuse for piggery			192.41
Paris Green			13.25
Wood			11.25
Coal for farm use			15.61
Tiles for drainage			123.87
Harness			38.67
Miscellaneous, as axle grease, etc			10.70
Veterinary services			36.75
Weighing hogs			2.75
Express on hogs			1.80
Threshing			58.34
Express on seeds			1.15
Stationery, etc			29.21
Repairs hot bed			2.71
" harness			20.07
" tools and implements			28.76
" vehicles			23.31
" ice tools			5.63
Horse shoeing			37.90
Convict labour supplied by other departments			372.45
" piggery, stables, and farm crops etc			2,834.78
Farm instructor's salary			800.00
Farm instructor's assistant salary			700.00
Stable guard's salary	2	600	1,200.00

Description.	Quantity.	Rate.	Amount.
Steward—			
Apples — Bbl.	1	$1.50	$ 1.50
Beans — Lbs.	2,385	.03	71.55
Beets — Bush.	402 1/6	.40	160.83
Cabbage — Lbs.	26,283		270.10
Carrots — Bush.	166 2/3	.40	66.79
Onions — "	163 3/5		154.70
Onions "Green" — Lbs.	2,811		34.03
Parsnips — Bush.	153 1/2	.75	115.12
Pork "dressed" — Lbs.	1,430		117.53
Potatoes — Bags	147 20/50	.80	118.13
Rhubarb — Lbs.	2,114	.005	10.57
Tomatoes — Bush.	279 3/4		107.65
Turnips — "	507 11/50	.30	152.21
Tomatoes "Green" — "	12	.20	2.40
			$ 1,383.11
Customers—			
Beets — Bush.	22 1/2	.40	9.00
Cabbage "heads"	12	.05	.60
Hay "timothy" — Tons	4 2/3		58.50
Mangels — Lbs.	300	.0035	1.05
Onions — Bush.	30.75	1.00	30.75
Parsnips — Bush.	1		.75
Pigs "small spring"	4	3.625	14.50
Pasturage			27.50
Roots "grown on warden's grounds"			5.00
Pork "dressed" — Lbs.	18,612		1,582.87
Pork "live" — "	23,335		1,469.88
Rhubarb — "	70	.005	.35
Straw "oats" — Tons	1/4	9.00	2.25
" "pressed" — "	1/4	5.00	1.25
Tomatoes "green" — Bush.	4.5	.20	.90
" "ripe" — "	25.5	.40	10.20
Turnips — "	4	.30	1.20
Peas — "	5	.75	3.75
Wheat — "	5	.75	3.75
Buckwheat — "	.75	.60	.45
			3,224.50

MISCELLANEOUS

Brought Forward	14,026.74	Storekeeper, straw for ice house	15.93
		Storekeeper, sale of horse	240.00
		Change room, straw for beds	9.00
		Storekeeper, palm for ice	1.00
		Ornamental grounds, seeds, bulbs, etc	15.05
		" repairs	.84
		" convict labour	165.33
		Farm improvements, tile	123.87
		" convict labour	1,312.05
		" horse labour	47.95
		Convict labour supplied to other departments	881.72
		Horse labour	1,993.52
		Repairs to ice tools	4.63
Profit for year ending March 31, 1909	2,407.40	Stock on hand March 31, 1909	9,015.64
	$ 18,434.14		$ 18,434.14

J. A. McCAUGHERTY,

Farm Instructor.

ST. VINCENT DE PAUL.

FARM PRODUCE.

	$ cts.	$ cts.
Steward.		
Pork, 41,175 lbs., at 8c	3,294 00	
Potatoes, 792 bags, at 60c	475 61	
Turnips, 140 bushels, at 25c	35 16	
Beets, 45 bushels, at 40c	18 26	
Scallions, 268 bundles, at 2c	5 36	
Carrots, 150 bundles, at 2c	3 00	
Carrots, 70 bushels, at 40c	28 36	
Onions, 65¾ bushels, at 75c	49 29	
Onions, 289 bundles, at 2c	5 78	
Cabbage, 550 heads, at 3c	16 50	
Cabbage, 3,711 heads, at 2c	74 22	
Tomatoes, 144 baskets, at 20c	28 80	
Potatoes, for bakery, 9 bags at 60c	5 93	
		4,040 27
Stable.		
Hay, 75 tons, at $9.00	681 79	
Straw, 11 tons, at $4.70	55 01	
Oats, 15,285 lbs., at $1.00 for 80 lbs	191 05	
		927 85
Piggery.		
Oats, 990 lbs., at $1.00 for 80 lbs	12 38	
Straw, 12 tons, at $4.70	61 29	
Mangels, 7 tons, at $4.00	28 00	
Moulée, 4,890 lbs., at 1c	48 90	
Barley, 14,495 lbs., at $1.00 for 80 lbs	181 18	
Mixed grain, 10,310 lbs., at 1c	103 10	
Small potatoes, 130 bags, at 40c	52 00	
Buckwheat, 2,440 lbs., at 1c	24 40	
Buckwheat, 7,310 lbs., at $1.00 for 80 lbs	91 37	
		602 62
Sales to Customers.		
Onions, 6 bags, at 90c	5 40	
Plants	8 62	
Onions, 7¾ bushels, at 75c	5 81	
Carrots, 5½ bushels, at 40c	2 20	
Parsnips, 3 bushels, at 40c	1 40	
Turnips, 9¼ bushels, at 25c	2 31	
Beets, ¼ bushel, at 40c	0 10	
Straw, 2 bundles, at 5c	0 10	
Potatoes, 2 bags, at 78c	1 56	
Barley, 96 lbs., at 1c	0 96	
Oats, 3 bags, at $1.52	4 56	
		33 02
Total		5,603 76

GENERAL STATEMENT.

DR.		CR.	
Stock on hand 31st March, 1908	$9,057 74	Pork, 41,175 lbs., @ 8c	$ 3,294 00
Farm seeds, implements, feeding, etc., and 2 horses	4,123 05	Potatoes, 792$\frac{25}{60}$ bags @ 60c	475 61
Shop work for stable, farm and piggery	575 29	Turnips, 140$\frac{48}{60}$ bush. @ 25c	35 16
Convicts' labour; farm 5,666½ days, @30c	1,699 95	Beets, 45$\frac{39}{60}$ bush. @ 40c	18 26
Convicts' labour; stable 1,490 days @ 30c	447 00	Scallions, 268 bundles @ 2c	5 36
Convicts' labour; piggery 1,328 days @ 30c	398 40	Carrots, 150 bundles @ 2c	3 00
Kitchen refuse to piggery	164 09	Carrots, 70$\frac{24}{60}$ bush. @ 40c	28 36
Salt, etc	83 71	Onions, 65$\frac{36}{60}$ bush. @ 75c	49 29
Instructor's salary (11 mos. @ $800 per annum)	733 33	Onions, 289 bundles @ 2c	5 78
Acting instructor's salary (1 mo. @ $600.00 per annum)	50 00	Cabbage, 550 heads @ 3c	16 50
Stable guard's salary	600 00	Cabbage, 3,711 heads @ 2c	74 22
		Tomatoes, 144 baskets @ 20c	28 80
		Potatoes, to bakery, 9$\frac{7}{60}$ bags @ 60c	5 93
			$4,040 27
		Custom sales, (including 3 condemned horses)	199 74
		Horse labour to different departments, 2,369 days @ 70c	1,658 30
		Convicts' labour to different departments, 1,600¾ days @ 30c	480 23
		Farm implements, condemned and sold	339 40
		Stock on hand March 31st, 1909	8,894 67
		Balance (loss)	2,319 95
	$17,932 56		$ 17,932 56

O. PAPINEAU,
Guard.

DORCHESTER.

To the Warden:

I have the honour to submit my statement for year ending March 31st, 1909.

It would appear from my statement that a large deficit exists, such however, is not the case. A larger amount has been expended in fattening the major part of the prison's live stock. For instance: The farm last fall purchased 29 head of cattle for fattening and which were resold this year 1909. They show an improvement in weight of about five hundred dollars, to say nothing of the manure which also accrues to the farm. These cattle number about one quarter of the entire live stock and they have all been treated in a like manner with especial care. It will be therefore apparent that when next year closes, the farm statement will show decided results in the way of a good balance to the right side of the account. In this my present statement all the live stock are credited at cost price.

The hay crop was excellent being five hundred tons. All the other crops were fair.

A. T. HICKS,
Farm Instructor.

PRODUCTS OF FARM.

403	tons English hay @ $8.00	$ 3,224 00
97	" Broadleaf @ $5.00	485 00
2,765	bushels potatoes @ 45c	1,144 25
4,000	" turnips @ 20c	800 00
166 2–3	" carrots @ 40c	66 87
62	" beets @ 40c	24 80
13	" parsnips @ 40c	5 20
125	heads cabbage @ 05c	6 25
12	doz. celery @ 25c	3 00

2,060	bushels oats @ 60c	1,236 00
165	" barley @ 70c	115 50
71	" buckwheat 60c	42 60
6,545½	quarts milk	239 00
157	pounds beef	10 79
32	" beef hide @ 06c	1 92
6,822	lbs. pork, @ 8c	545 76
67	small pigs	177 00
26	bull service @ $1.00	26 00
5	boar service @ 50c	2 50
	Total of farm products	$ 8,156 44

STATEMENT OF FARM.

DR.			CR.		
To stock on hand March 31, 1908		11,185,22	By sold to prison—		
kitchen refuse to piggery		86 64	potatoes, 91,742 lbs	688 07	
hospital account		30	turnips, 29,945 lbs	99 82	
farm seeds	355 53		carrots, 6,519 lbs	43 48	
flower seeds	90		parsnips, 395 lbs	2 63	
		356 43	cabbage, 79 hd	4 74	
binder twine	9 90		beets, 663 lbs	4 42	
lawn mower	10 00		beef, 80 lbs	5 40	
cedar posts	26 00	45 90	pork, 6,692 lbs	535 36	
bran, meal and oats		308 75	milk, 5,062 qts	183 08	
veterinary guide		2 00	straw, 6,000 lbs	12 00	1,579 00
" service		15 00	*By Sundry Customers—*		
Drug account		12 78	vegetables	23 58	
Bought Cattle—			beef, 77 lbs	5 39	
29 head cattle		1,191 80	pork, 130 lbs	10 40	
bull (1)		100 00	small pigs, 67 only	177 00	
boar (1)		20 00	bull service, 26	26 00	
horses (2)		440 40	boar service, 5	2 50	
double harness, 1	49 00		milk, 1,519² qts	55 92	
100 ft. hose	15 00		hay, 550 lbs	2 20	
1 mowing machine	48 00	112 00	straw, 300 lbs	75	303 74
tools		108 85	*Condemned Goods—*	229 68	
sundries		47 41	1 mare sold	25 00	
steward's account	63				254 68
blacksmith's account	280 76		repairs to road machine		75
carpenters' account	82 34		*By Farm Improvements—*		
machinist's account	2 82		wire fence	237 50	
stone cutters' account	25 00		miscellaneous	21 91	
shoe maker's account	30 57		convicts' labour, 106 days	31 80	
tailors' account	2 40		horse labour, 11 days	7 70	
masons' account	6 81		ox labour, 39² days	13 76	
		431 33			312 67
fertilizers		147 00	*By Ornamental Grounds—*		
convicts' labour from other departments, 362 days		108 60	seeds	90	
			convicts' labour, 115 days	34 50	
			ox labour, 3 days	1 05	
					36 45
To Labour on Piggery and Cattle Barn—			*By Labour on Roads—*		
convicts' labour, 1995 days	598 50		convicts' labour, 339 days	101 70	
			oxen labour, 80 days	28 30	
To Labour on Stables			horse labour, 41 days	28 70	158 77
convicts' labour, 1971 days	591 45				
		1,189 95	*By Labour to Sundry Customers—*		
2 guards' salaries	1,200		convicts' labour, 33⅝ days	10 15	
farm instructor's salary	800		horse labour, 3½ days	2 45	
		2,000	oxen labour, 1 day	35	
					12 95
			messenger's horse, 313 days		219 10
			By labour to other departments—		
			convicts' labour, 1987½ days	596 20	
			horse labour, 1,570⅝ days	1,099 46	
			oxen labour, 459½ days	160 73	1,856 39
			stock on hand		12,756 33
			balance (loss)		1,965 10
		19,455 91			19,455 91

A. T. HICKS,
Farm Instructor.

MANITOBA.

STONY MOUNTAIN, April 5, 1909.

To the Warden:

I have the honor to submit the annual farm statement for the year ended March 31, 1909.

Oats, 3,200 bush; barley, 2,300 bush; potatoes, 1,700 bush; turnips, 1,000 bush; beets, 100 bush; carrots, 50 bush; hay, 80 tons; cabbage, 1,000 heads; and other green vegetables for prison use.

Owing to the vacant lands around us being so infested with sow thistle, we will have to keep up a vigorous fight to keep our land from being over-run, for where it gets a hold no crop has any chance. Most of the farm labor has to be done at certain times, or labor already expended is entirely lost.

Our stock have all wintered well.

Respectfully submitted,

W. R. GRAHAME,
Farm Instructor.

GENERAL STATEMENT.

To Inventory March 31st, 1908		$7,314 78	*By Storekeeper (Steward)*—		
			1,158½ gals. milk @ 20c	231 90	
			14 bush. turnips @ 20c	2 80	
To Storekeeper—			54 " " @ 25c	13 50	
1 ton soft coal	6 70		100½ bush. turnips @ 30c	30 15	
1 cord Tamarac wood	5 40		38½ bush. carrots @ 30c	11 56	
10¼ " @ $5.00	51 25		405 lbs. pork @ 5½c	22 28	
horse shoeing	47 55		515 " @ 6½c	33 48	
" brushes	4 17		1,088 " @ 7c	76 16	
garden and farm seeds	117 10		857 " @ 7½c	64 28	
1 ton shorts	21 00		1,562 " @ 7¼c	113 24	
1 " bran	17 50		200 " 8c	16 00	
2 pairs team lines	8 50		724½ bush. potatoes @ 30c	217 35	
1 team horses	350 00		92½ " " @ 40c	37 00	
1 "	500 00		36½ bush. beets @ 30c	10 96	
auctioneers' services	8 00		394 lbs. lettuce @ ½c	1 97	
veterinary services	32 00		7½ bush. onions @ 60c	4 50	
600 lbs. binder twine @ 11c	66 00		1,980 lbs cabbage @ ½c	9 90	
5 gals. machine oil	1 85		2,357 lbs. beef, $5.95	140 24	
1 potato cultivator	50 00				1,037 07
1 mower	55 00				
1 disc. harrow	35 00				
castings	17 60		*By Storekeeper (Other Depts.)*—		
1 doz. hay forks	5 40		1½ tons, hay @ $4.00	6 00	
½ doz. manure forks	3 00		143 cedar posts, @ 15c	21 45	
threshing 5,560 bush. grain @ 3c	166 80		474 days, team labour @ $1.40	663 60	
1 doz. box axle grease	1 10		573 " convict labour, 30c.	171 90	
3 plow shares @ $3.50	10 50		8 loads straw @ $1.00	8 00	
1 land side	3 50		100 days patrol horse, @ 70c	70 00	
3 corn brooms @ 19c	57				940 95
repairs, etc	15 80				
		1,601 29			
			By Customers—		
			218¼ bush. oats @ 50c	109 13	
To Accountant—			232¾ bush., barley @ 50c.	116 39	
freight, express and travelling expenses	23 72		102 bush., potatoes @ 30c	30 61	
		23 72			
Carried Forward		8,939 79	Carried Forward	256 13	1,978 02

FARM STATEMENT.—*Continued.*

Brought Forward		8,939 79	Brought Forward	256 13	1,978 02
			By Customers (Con.)—		
			750 bush. potatoes @ 35c	262 50	
			144 " " @ 40c	57 60	
			1 " parsnips	30	
			10 " carrots @ 30c	3 00	
			7¾ " turnips @ 30c	2 33	
			13½ " " @ 25c	3 38	
			2 " beets @ 30c	60	
			510¼ gals. milk, @ 20c	102 05	
			1 heifer	50 00	
			bones	75	
			455 lbs. beef hides, @ 6c	27 30	
			305 " cabbage @ 1c	3 05	
			260 " rhubarb @ 1c	2 60	
			32 " pork @6c	1 92	
			1,829 " " @ 7c	128 03	
			325 " " @ 7¼c	23 57	
			548 " " 7½c	41 10	
			412 " " @ 8c	32 96	
			7 livers and hearts @ 30c	2 10	
			3 bull services @ $1.00	3 00	
			12 boar services @ 75c	9 00	
			teaming	43 36	
			21⅞ days convict labour @ 30	6 35	
			2 condemned horses	124 00	
			284 lbs. beef @ 6c	17 04	
			1,288 " " 6½c	83 74	
			496 " " 7½c	37 20	
			580 " live hogs @ 4½c	26 10	
			2,985 " " 5½c	164 17	
			875 " " 5¾c	50 30	
			1,485 " " 6c	89 10	
			5,160 " " @ 6½c	335 39	
					1,990 02
To Steward—			*By Mason*—		
Refuse from kitchen	45 81		296 days team labour @ $1.40	414 40	
3 bbls. salt @ $2.52	7 56		321½ days convict labour @30	96 45	
		53 37			510 85
To Mason—			*By Brickyard*—		
Lime	1 38		72½ days team labour @ $1.40	100 80	
		1 38	116 days convict labour @ 30c	34 80	
					135 60
To Carpenter —					
Repairs	81 26		*By Carpenter*—		
		81 26	2½ days team labour @ $1.40	3 50	
			2½ days convict labour @ 30c	75	
To Blacksmith—			4 lbs. wire staples @ 3¼c	13	
Repairs and horseshoeing	43 60				4 38
		43 60			
To Engineer—			*By Engineer*—		
Repairs	9 51		176 lbs. tallow @ 7c	12 32	
		9 51			12 32
To Shoemaker—			*By Maintenance of Buildings*—		
Repairs	13 60		Repairs to stable floor	32 40	
		13 60			32 40
To Convict Labour, 3997 days, 30c.	1,199 10		*By Inventory* March 31st, 1909		7,700 18
		1,199 10			
To Farm Instructor's Salary, 1 yr.	800 00				
		800 00			
To Balance (Profit)		1,222 16			
		12,363 77			12,363 77

BRITISH COLUMBIA.

SAPPERTON, April 27th, 1909.

To the Warden:

I have the honor to submit herewith annual farm statement of the year ended March 31st, 1909.

The crops generally, I am pleased to report, were last year above the average, the hay, the potato and the onion crops deserving special mention. I think the supply of onions will not be exhausted until those of this year are harvested.

A portion of the new ground purchased is planted in pease and oats which are doing well.

This calendar year, 100 one-year-old apple trees were planted. It is too soon, of course, to tell how they will do.

The return of pigs was very satisfactory, and there are now 150 in the piggery.

Respectfully submitted,

R. DYNES,
Farm Instructor.

PRODUCTS OF FARM 1908-1909.

69¼	tons potatoes @ $16.00	$ 1,108 00
3	" carrots @ $7.50	22 50
1½	" turnips @ $6.00	9 00
2¼	" beets @ $15.00	33 75
13–20	" parsnips @ $15.00	9 75
2	" oats @ $25.00	50 00
36	" hay @ $15.00	540 00
2¼	" pease @ $30.00	67 50
2,300	pounds onions @ 01¼c	28 75
373	" leeks @ 01¼c	4 66
165	" lettuce @ 00½c	82
2,615	" cabbage @ 06c	15 70
100	" rhubarb @ 00½c	50
9,726	" pork @ 08½c	826 71
	Total	$ 2,717 64

GENERAL STATEMENT.

DR.			CR.		
To stock on hand, March 31, 1908		$ 4985 85	*By Storekeeper—*		
Oats, 20,410 lbs	357 17		Pork, 9,726 lbs	$ 826 62	
Bran, 2,524 lbs	38 34		Potatoes, 70,099 lbs	560 78	
Wheat, 250 lbs	5 00		Pease, 2,670 lbs	40 06	
Brewers' grains, 162 loads	81 00		Carrots, 3,021 lbs	12 09	
Manure, 61 loads	31 25		Beets, 1,885 lbs	14 13	
Oat, timothy and red clover seed	32 75		Parsnips, 2,514 lbs	18 86	
Sundry seeds	4 75		Turnips, 1,208 lbs	3 65	
Sundry supplies	101 83		Leeks, 373 lbs	4 66	
Hose, 150 ft	28 00		Rhubarb, 100 lbs	51	
Drugs	74		Lettuce, 165 lbs	82	
Doe, 1	5 00		Onions, 2,152 lbs	26 91	
Refuse from kitchen	63 07		Venison, 309½ lbs	27 35	
Horse, 1	350 00		Cabbage, 2,616 lbs	15 70	
Sleigh, 1	9 93				$1,552 14
Shoe shop general repairs	69 15				
Carpenter shop repairs	228 40				
Blacksmith shop repairs	134 27		*By Sundry Customers—*		
Services, veterinary surgeon	6 50		Hay	159 52	
Labour, 4,507 days @ 30c	1,352 10		Cabbage plants	10	
		2,899 25	Hauling	19 50	
Salary, farm instructor	800 00	800	Horses, 3	345 00	
			Road cart, 1	15 00	
			Rent of pasture	2 00	
			Sand	15 50	
					556 62
			By Convict labour to other departments—		
			1,008 days @ 30c	302 40	
			Horse Labour—		
			1,377½ days @ 70c	964 25	
					1,266 65
			By Tools transferred to—		
			Tool room stock		54 40
			By Stock on Hand March 31, 1909		4,951 03
			By Balance (loss)		304 26
		8,685 10			8,685 10

APPENDIX N.

YUKON PENITENTIARIES

DAWSON, Y. T., 6th., April 1909.

SIR,—I beg to forward herewith my annual report as inspector of penitentiaries for the Yukon Territory, for the fiscal year ended 31st. March, 1909, for transmission to the Department of Justice.

I have the honour to be,
Sir,
Your obedient servant,
Z. T. WOOD,

Assistant Commissioner Commanding R.N.W.M. Police, Yukon Territory.

The Comptroller,
R.N.W.M. Police,
Ottawa, Ont.

Transferred to the Department of Justice. F. WHITE,
Comptroller.

Ottawa, 27th April, 1909.

DAWSON, Y.T., 6th., April, 1909

The Honourable,
The Minister of Justice,
Ottawa,

SIR,—I beg to submit herewith my annual report as inspector of penitentiaries for the Yukon Territory, for the fiscal year ended 31st March, 1909, together with reports from the wardens at Dawson and Whitehorse. The penitentiaries at these points are under the control and supervision of the Royal North West Mounted police.

My annual report for 1907-1908 was closed on the 30th June of the last named year. In order to conform with the reports of inspectors and wardens throughout the other parts of Canada, I am closing this one on the 31st March.

POPULATION.

At the close of my last report there were no convicts at Dawson. Since then three (3) have been admitted, two of which are still serving, the third having been hanged on 6th October, 1908.

There have been no convicts at Whitehorse during the past twelve months.

TICKET OF LEAVE.

One convict under sentence of theft was released on ticket of leave on the 12th March, 1907, when he had one year, two months and twenty-four days to serve. While on parole he was again convicted of a similar offence on 7th January, 1908, sentenced to a term of six months hard labour, in addition to the portion of sentence remitted.

PARDONS, DEATHS AND ESCAPES.

There have been no pardons, deaths nor escapes.

MORAL HABITS.

Of those confined in the Dawson penitentiary, two were temperate and one intemperate.

EDUCATION.

All three could read and write.

NATIONALITY.

Two were born in Canada, the other, who was hanged, was a Russian Finn.

CREEDS.

All three were Roman Catholics.

CRIME.

The Territory has been almost free from crime of a serious nature. The Russian Finn charged with murder—to whom I alluded in my last report—was found guilty and sentenced to be hanged. He was duly executed in the penitentiary yard at Dawson on the 6th October last.

Regarding the hold-up near Whitehorse, referred to in last year's report, after a good deal of trouble, and after having had the alleged victim shadowed when he reached his home, it was found that he had not been molested, but had told the story in order to account for the disappearance of some money entrusted to him.

IMMIGRATION.

The enforcement of the terms of the Immigration Act with regard to persons entering the territory, and the appointment of an agent at White Pass Summit, had a most beneficial effect. Many undesirables were turned back by the late Mr. Noot, and it was with great regret I learned of his death. His successor will, no doubt, be equally efficient, as will also Mr. T. R. Moulton at Forty Mile, who has just had the duties of Immigration Agent at that point added to his work as Customs Officer.

INSPECTIONS.

I have inspected both penitentiaries during the past twelve months—the one at Dawson frequently.

No complaints have been made by the convicts.

Perfect cleanliness is a feature of both premises, and the sanitary conditions are as good as can be obtained in log structures of their age.

HEALTH.

There has been no case of serious sickness among the convicts.

GENERAL.

In closing, I wish to express my appreciation of the manner in which the respective wardens, and the non-commissioned officers of the Royal North West Mounted police (Reg. No. 2914 Sergt. Smith E. and Reg. No. 4228 Corpl. Needes, A. E.), who have been in charge of the penitentiaries, have performed their duties.

While the number of convicts confined is small, it must not be forgotten that in the same building (though in as far as practicable, in a different wing) are imprisoned common jail offenders, both male and female, prisoners awaiting trial, the insane (sometimes for a month at a time), those held under capias, those awaiting extradition, and occasionally an unfortunate condemned to death.

Under these conditions it is difficult to prevent communication between those in confinement; nevertheless no prisoner of any class yet succeeded in escaping. This is entirely due to the unceasing vigilance of those in immediate charge.

I have the honour to be

Sir,

Your obedient servant,

Z. T. WOOD,

Assistant Commissioner, Commanding R.N.W.M. Police, Yukon Territory.
Inspector of Penitentiaries in the Yukon Territory.

WHITE HORSE

WHITE HORSE, Y.T., March 31st, 1909.

To the Inspector of Penitentiaries,

Dawson, Y.T.

SIR,—I have the honour to submit this my annual report as warden of the White Horse penitentiary and common jail up to the end of year ending March 31st, 1909 from the 1st July 1908, my last annual report having been rendered 30th June last.

The R.N.W.M. Police guard room is used as a common jail and penitentiary for which purpose it is not all that could be desired as mentioned in my last report.

The sanitary conditions are at all times given the most scrupulous attention and are as good as they can be made without the installation of a water and sewerage system.

No penitentiary prisoners have been received during the year, one man reported as serving a term of one year with hard labour for theft in my last report is not yet time expired and represents the longest term we have had to deal with this year.

The population of the district is about the same as last, being on the way to decreasing if anything this year and with no special features indicative of change in criminal statistics for the immediate future.

All clothing was supplied from our own stores, and the provisions were of good quality and the quantities issued were in accordance with regulations.

The conduct of the prisoners, during the period reported on, has been uniformly good, no serious breach of discipline having occurred.

The general health of prisoners has been good and treatment by the surgeon, confined almost altogether to slight injuries or results of more serious injuries received before the patients came under our observation.

The duties of provost have been carried out by n. c. o. or constables detailed permanently from time to time as was found expedient and are at present very efficiently carried out by constable Scott assisted by escorts during the day and by n. c. o. or constable in charge of the guard at night.

The penitentiary has been inspected by an officer and surgeon daily and weekly by the officer commanding as warden—upon all of which occasions the prisoners were asked if they had any complaints.

I attach hereto the usual statistics required.

I have the honour to be, sir,

Your obedient servant,

A. G. SNYDER, Supt.,

Commanding "H" Division and District.

Warden of White Horse Penitentiary.

Prisoners confined in the R.N.W.M. Police guard room at White Horse on July 1st, 1908, received during the period reported on to complete the record for year ending March 31st, 1909, released during that period and remaining on hand 31st, March 1909.

In custody 1st, July 1908	3
Received during the interval to date (Including 13 lunatics.)	47
Total	50
Discharged by payment of fine or suspended sentence	29
Expiration of sentence	5
Lunatics transferred to New Westminster Asylum	13
Total	47
Remaining in custody March 31st, 1909	3

DURATION OF SENTENCE.

1 year hard labour	1
3 months hard labour	1
2 months hard labour	1
30 days hard labour	1
14 days hard labour	1
5 days hard labour	2
1 awaiting trial	1
Total	8

NATIONALITY.

American born	1
Scottish "	1
English "	1
Belgian "	1
Indian (Stick or Siwash)	4
Total	8

CRIME.

Theft	2
Assault	1
Drunk	3
Supplying liquor	1
Awaiting trial	1
Total	8

CREED.

Protestant	3
Roman Catholic	1
Pagan	4
Total	8

MORAL HABITS.

Temperate	1
Intemperate	7
Total	8

CIVIL STATE.

Single	8

ETHNOLOGY.

White	4
North American Indian	4

DAWSON.

DAWSON, Y.T., April 1st, 1909.

To the Inspector of Penitentiaries,
Yukon Territory,

SIR,—I have the honour to report as follows concerning the prisoners confined in the Dawson penitentiary during the nine months ending March 31st. 1909.

BUILDING.

The Royal North West Mounted Police guard room is still being used in which to keep convicts, common jail, prisoners and insane patients. The convicts are kept apart from the other prisoners as far as possible.

In the interests of economy is was found advisable to close the east wing of the building as we have had but few prisoners and not more than 3 convicts at any one time.

The building which is of logs is very old and needs constant repairing. An estimate has been forwarded of the cost of these repairs.

CLOTHING.

The clothing which is supplied by the quarter master store is of very good quality. We have had to purchase some in town during the past winter which has been equally good and of a reasonable price.

CONDUCT.

The conduct of the prisoners has been good on the whole, very few breaches of discipline being brought to my notice.

HEALTH.

The health of the prisoners has been very good. One of prisoners received a nasty cut on the head from a block of wood but was off duty for a few days only.

INSPECTIONS.

Daily inspections are made of the prison by myself, or the officers and it has also been inspected by yourself. Very few complaints have been made, and these only of a trivial nature which have been remedied at once.

RATIONS.

The rations issued to the prisoners are ample and of the best quality. The meals are prepared in the division mess.

STAFF.

The staff consists of a provost, escorts and night guards. The provost is a permanent position and has been held by Reg. No. 2914 Sergt. Smith E. who has been in charge for nearly three years. This position, which is a responsible one, has been filled very satisfactorily.

The escorts are detailed daily from amongst the duty men in barracks. During the early part of the summer as we were short of men, this duty was almost a permanent one.

The night guard which was a daily detail is now a permanent one. It consists of three men, one of whom does the duties in the winter of night stoker and flying sentry.

Altogether, counting both day and night guards, 8 men are employed, 5 by day and 3 by night.

Insane patients, who are kept in the guard room until either cured or transferred outside, are often troublesome especially when violent as they disturb other prisoners both by day and night, and the routine in general.

EXECUTIONS.

On October 6th, 1908, one Edward Elfors was executed for the murder of one of his companions on the Yukon River. The scaffold was erected in the eastern part on the guard room where former excutions have taken place. He was buried in the barrack grounds.

LABOUR.

Varied work is to be found in and around barracks for the prisoners. This past winter especially as the weather has been intensely cold, wood sawing and splitting was practically the only work to which they were put. In summer the grounds are kept in proper condition and the buildings repaired.

There are, including, convicts and the common jail prisoners, nine (9) in our custody at the present time, so that it is often difficult to get the necessary work done.

The reading matter is supplied by the R.N.W.M. Police library and consists of magazines and outside papers. No local matter is allowed in the guard room.

I attach herewith a summary of the prisoners confined at present and also during the last nine months, together with a report from Assistant Surgeon Thompson.

I have the honour, to be, Sir,
Your obedient servant,
R. A. WROUGHTON, Inspr.,
Commanding "B" Division R.N.W.M. Police.

DAWSON, Y.T., March 31st, 1909.

The Officer Commanding,
"B" Division, Dawson, Y.T.

SIR,—I have the honour to forward herewith my report for the nine months ending March 31st, 1909, in connection with the penitentiary at Dawson.

I am pleased to report that there were no cases of serious sickness among the prisoners in this department, due, principally to the small number under confinement. La Grippe and biliousness were the only ailments suffered, and one prisoner received a cut over the head from a piece of wood, but, it healed, after sewing, in a few days.

In the early part of June, Edward Elfors was arrested on the Yukon River, on the charge of murdering one of his travelling companions David Bergmann: at his trial, having been found guilty, he was condemned to be hanged on October 6th 1908, at which date the execution was carried out in the usual manner within the prison grounds.

The continuous inspections and the sanitary inspections tend to keep the penitentiary in as sanitary condition as is possible, and this is borne out by the continued good health of those confined therein.

I have the honour to be, sir,
Your obedient servant,
W. E. THOMPSON,
Assistant Surgeon.

Number of prisoners undergoing sentence in the R.N.W.M. Police penitentiary at Dawson, Y.T., from July 1st, 1908 to March 31st, 1909.

In custody, July 1st, 1908	1
Received dur ng the year	3
Total	4

Discharged on ticket of leave	1
Hanged	1
	2
Still serving	2

DURATION OF SENTENCE.

To be hanged	1
3 years P. S. (Revocation of Ticket of Leave)	1
2 years P. S.	2
Total	4

NATIONALITY.

Canada	3
Russian Finland	1
Total	4

CRIMES.

Murder	1
Theft from the person	1
Theft	2
Total	4

CIVIL STATE.

Married	1
Single	3
Total	4

ETHNOLOGY.

White	4

CREED.

Protestant	1
Roman Catholic	3
Total	4

MORAL HABITS.

Intemperate	1
Temperate	1
Moderate	2
Total	4

SESSIONAL PAPER No. 34.

ROYAL NORTH WEST MOUNTED POLICE.

DAWSON, Y.T., 31st March, 1909,

The Officer Comanding,
"B" Division R.N.W.M. Police, Dawson, Y.T.

SIR,—I have the honor to submit the following statement of penitentiary prisoners in the Dawson jail between the 1st. July 1908 and 31st. March, 1909:—

Crime.	To be Hanged.	Sentences.		Totals.
		Three years P.S.	Two years P.S.	
Theft from the person			1	1
Murder	1			1
Theft from dwelling house		1		1
Theft			1	1
Totals	1	1	2	4

The above statement includes one discharged on ticket of leave, one hanged, one serving balance of sentence of 3 years P. S. on revocation of ticket of leave. The last mentioned and one other are still serving.

I have the honor to be, Sir,
Your obedient servant,
G. SMITH, Sergt.
Provost.

Date Received.	Name.	Crime.	Sentence.	Date of Sentence.	By whom Sentenced.
1907.				1907.	
March 15..	McDonald, Walter....	Theft from the person.....	2 years P.S.....	March 15..	Judge Macaulay....
1908.				1908.	
July 7..	Elfors, Ned.....	Murder.....	To be hanged..	July 7..	Judge Craig.....
				1905.	
July 7..	Shaw, David R.....	(1) Theft of gold bearing gravel and dirt, containing gold and gold dust.	3 years P.S.....	June 6..	Judge Craig.....
		(2) Breaking and entering a dwelling house by day and stealing therefrom.	2 years P.S.....	June 6..	"
		(3) Theft of gold bearing gravel and dirt, containing gold and gold dust; value about $100.00.	1 year P.S.....	June 6..	"
				1908.	
Oct. 5..	Ross, Thos. Anthony..	Theft.....	2 years P.S.....	Oct. 5..	Judge Macaulay....

Read or Write or Both.	Nationality.	Intemperate	Temperate	Moderate	Creed.	Occupation.	Remarks.
Both	Canada		Yes		Protestant	Labourer	Released on ticket of leave, 9th May, 1908.
Both	Russ. Finn			Yes	R. Catholic	Ships carpenter.	Hanged on 6th October, 1908.
Both	Canada	Yes			R. Catholic	Labourer and miner.	Released on ticket of leave, 12th March, 1907. Convicted of theft and sentenced to 6 months hard labour, 7th January, 1908. Now serving balance of P.S., *i.e.*, 1 year, 2 months, 24 days, on revocation of ticket of leave.
Both	Canada		Yes		R. Catholic	Barber	Still serving.

REPORT

OF

THE MILITIA COUNCIL

FOR THE

DOMINION OF CANADA

FOR THE

FISCAL YEAR ENDING MARCH 31

1909

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1909

[No 35—1910.]

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom, and a Baronet; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Knight Grand Cross of the Royal Victorian Order, &c., &c., Governor-General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Report of the Militia Council for the fiscal year ending March 31, 1909.

Respectfully submitted,

F. W. BORDEN.
Minister of Militia and Defence.

DEPARTMENT OF MILITIA AND DEFENCE,
OTTAWA, September 1, 1909.

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ANNUAL REPORT

OF

THE MILITIA COUNCIL

YEAR ENDING MARCH 31, 1909

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1. The Militia Council present, herewith, their report on the work of the Militia during the twelve months ended March 31, 1909.

2. The results of the training during the period under review, and the report of the Officer Commanding the Militia at the Quebec Tercentenary celebration on the part taken by the troops on that historic occasion, were published a few months ago as an interim report, which is appended hereto for purposes of reference. (Appendix E.)

MILITARY POLICY.

GENERALLY.

3. It has been decided to proceed with the organization of a Canadian General Staff, which will become in time the Canadian Section of the Imperial General Staff. With the foregoing exceptions there have been no important changes in military policy during the period under review.

IMPERIAL GENERAL STAFF.

4. As regards the establishment in Canada of a Canadian section of the Imperial General Staff, the scheme is explained in a memorandum which accompanied a letter dated War Office, London, December 15, 1908. Both of these documents were included in a Parliamentary Return, which was laid on the table of the House of Commons last session and has been printed and issued as a Blue-book. (Sessional Papers No. 99, 1908-9).

5. While the general principles enunciated in the memorandum have been accepted, the control of the local station by the responsible minister has been fully safeguarded, as the following extract therefrom shows:—

'That while chiefs of local sections keep in close communication with the chief of the Imperial General Staff, they cannot receive orders from him. He will keep them informed as to what are considered, from an Imperial point of view, the correct general principles, and they will advise their governments as to the best method of applying these principles to local conditions, and as to the risk of departing from them. When their advice is not accepted, it will be their duty to carry out whatever their respective governments may order.'

6. Further, in order to avoid possible misunderstanding and consequent misrepresentations of the views or intentions of the Dominion government, it has been ruled that all communications from the Chief of the Canadian Section to the Chief of the Imperial General Staff, other than those on purely routine or ephemeral questions, must, before being despatched, be submitted to the Minister of Militia for his approval.

7. Definite assent has been given to the proposition that in order to qualify themselves for employment on the Imperial General Staff, officers must have been educated up to a certain standard of military knowledge, and have become imbued with the requisite uniformity of thought and practice, a result which can best, or only, be obtained by undergoing a course of instruction at a Staff College.

8. The memorandum hints at the possibility that the English Staff College (which must remain, for many years, the central school of higher military education) may become congested, and as a possible remedy suggests that similar institutions might be established, as in India, in the Oversea Dominions.

9. The idea of establishing a Canadian Staff College cannot yet be entertained. For a long time to come officers must continue to be sent, subject to the concurrence of the War Office, to the English Staff College; and should this procedure entail any addition to the accommodation at Camberley, or to the number of instructors, the Dominion government would no doubt be willing to contribute its share of the expense, calculated upon an equitable basis.

10. A cognate question with which the memorandum deals, is the preliminary education of Staff College candidates; for it is realized that they should possess qualifications which will enable them not merely to pass the entrance examinations, but to derive the fullest benefit from the course. This question, so far as it concerns Canada, presents certain minor difficulties as adumbrated in the memorandum; but it is considered that they could best be overcome by an extension of the functions of the Royal Military College, Kingston, and by including among its instructors specially selected officers from the educational branch of the Imperial General Staff.

11. Finally the memorandum lays stress on what may be gained by a free interchange of officers, and especially upon the good which would result from periodical conferences attended by representatives of the Imperial General Staff from all parts of the Empire. The advantages are indeed obvious; and although the acceptance of the proposals under reference may involve a certain amount of expenditure, the result will amply justify the comparatively trifling outlay.

MOBILIZATION AND DEFENCE.

12. As regards mobilization, attention was directed in the report for the year ending March 31, 1908, to certain defects which, having regard to the means at disposal, time alone could remedy; and, during the past twelve months, as much progress has been made as the financial situation rendered possible.

13. Problems connected with defence have been closely studied, the general scheme rearranged to some extent, and the allotment of units revised.

14. The Halifax defence scheme has been brought up to date, and in commenting on the arrangements made for the protection of the fortress, the Colonial Defence Committee, London, England, have expressed the opinion that the scheme 'gives evidence of much careful work and reflects great credit on the officers charged with the duty of preparing it.'

ORGANIZATION.

15. In the east, in the four 'Commands,' improvements were during the year introduced in the organization of the troops detailed for service in the field, as opposed

to garrison duty. The six territorial divisions, the composition of which has been communicated confidentially to the officers concerned, have been to some extent remodelled, with a view to rendering them more homogeneous than heretofore.

16. In the west (Military Districts Nos. 10, 11 and 13) steady progress has been made in the expansion of the Militia. During the period under review there have been added to the establishment ten squadrons of cavalry, and twenty-eight companies of infantry.

INTELLIGENCE.

17. In the Intelligence Division work proceeded on the same lines as formerly. Reports were collated and compiled for the information of the Government; items of information extracted from newspapers and periodicals were indexed and filed; a monthly intelligence diary was prepared; and the annual return of naval and military resources was forwarded to the War Office.

18. Thanks are due to the officers of the Corps of Guides for the willing assistance they rendered during the year in collecting and communicating intelligence. The reports which they send in are always useful, sometimes very valuable.

SURVEY DIVISION.

19. The field work of the Survey Division was commenced on April 1 and was continued until December 11, 1908.

20. Triangulation was resumed in the Eastern Townships, where two staff lieutenants and eight temporary assistants were employed.

21. The transit work consisted in connecting the existing net-work of transit traverses to the triangulation points of the Canadian Geodetic survey, for purposes of adjustment.

22. Four level parties were in the field during the greater part of the summer, and succeeded in running 4,039 miles of levels for the use of the topographers.

23. The topography of 3,765 square miles in the counties of Oxford, Elgin, Middlesex and Lambton was completed. The work was carried out by three permanent employees, four non-commissioned officers of the Royal Engineers and three temporary assistants. Two of the latter, being cadets of the Royal Military College, were not employed until after the college had closed for the summer vacation. In charge of the work was a staff lieutenant who, during the field season, established his headquarters at London, Ont.

24. The 'revision' completed during the year covered the Long Point, Simcoe, and eastern halves of the Port Burwell and Tilsonburg sheets, a total area of 1,257 square miles.

25. The work of reduction and compilation was carried on in the office. Eight sheets of the regular series were completed, and a like number were lithographed.

26. In all, forty sheets have now been surveyed, covering an area of 14,415 square miles. Of these sheets, thirteen have been published, twelve are in the hands of the lithographers, and the remaining fifteen are in the course of preparation. Copies of sheets to the number of 1,674 were distributed during the year.

27. In addition to the regular work in the office, a number of manœuvre maps of ground in the vicinity of the different camps were prepared and issued, and a considerable amount of information was supplied to other departments of the public service.

MUSKETRY.

28. The musketry training in camps of instruction was much more satisfactory than in former years. A much larger number of men fired the practices laid down by

the regulations than in 1907, and the figure of merit was higher in most cases. The work was systematized, particularly as regards preliminary training, and it is satisfactory to know that a very small percentage of men armed with a rifle attended a camp of instruction in 1908 without learning how to load, aim and fire a rifle with reasonable accuracy.

29. Much better results are looked for next training, as all ranks are realizing the importance of musketry. The time in camps, available for musketry, is too short, and the accommodation, in some cases, inadequate for the number of men to be trained. This was particularly true of Goderich, Niagara-on-the-Lake, Kingston and Levis. Improvements have been made at Niagara-on-the-Lake and Kingston which should produce better results. The sub-target rifle machine was used with great success at most of the camps, in preliminary training.

30. 'Judging distance' practices were carried on in most of the camps and, on the whole, most gratifying interest was shown in this important subject.

31. The city corps performed better work than formerly, but there are still a number of units that train at local headquarters without any target accommodation whatever. Everything possible is being done to remedy this.

RIFLE ASSOCIATIONS.

32. The number of Rifle Associations at the end of the year and the membership were as follows:—

	No.	Membership.
Military	140	15,328
Civilian	412	24,018
Total	552	39,346

33. The above figures show an increase over 1907-8 of 10 Military Associations (increase in membership, 458), and 45 Civilian Associations (increase in membership, 1,300).

34. During the year the Militia Council decided to offer a handsome nickel silver salver to the member of each civilian rifle association making the best average in a series of practices prescribed by regulations. This gift aroused a great deal of interest which will, no doubt, increase from year to year.

35. Judging by the Inspection Reports and Target Practice Returns, the majority of the rifle associations are doing good work, which will be valuable to the country when required.

SIGNALLING.

GENERALLY.

36. The conditions of signalling in Canada for the year under review, showed a steady advancement and a good healthy competition now prevails. This is specially noticeable in the case of the Artillery, to whom the Canadian Artillery Association awards prizes for the first and second best signallers in each battery and company.

37. All officers of the Canadian Signalling Corps are now qualified with one exception.

38. The garrison signalling classes were well attended and showed good results 231 officers, non-commissioned officers and men of the Active Militia (including the Permanent Force) obtained certificates.

39. At the several camps of Instruction 39 officers and 592 non-commissioned officers and men were trained in Semaphore signalling.

40. Excellent signalling work was carried out regimentally during the year by all units of the Permanent Force. This should ensure an efficient staff of assistant instructors for the training of the non-permanent militia.

EFFICIENCY.

Permanent Force.

41. As regards the general efficiency in Signalling of the several units of the Permanent Force,—the Royal Canadian Mounted Rifles; 'A' Battery, Royal Canadian Horse Artillery; No. 3 Company, Royal Canadian Garrison Artillery; and 'G' Company, Royal Canadian Regiment, took first place in their respective arms.

Artillery.

42. The result of the general efficiency competition was as follows:—

Field—

22nd Battery	1st
13th 'Winnipeg' Battery	2nd
21st Battery	3rd

Garrison—

4th 'Prince Edward Island' Regiment	1st
3rd 'New Brunswick' Regiment	2nd
2nd 'Montreal' Regiment	3rd

Signalling Corps.

43. No. 8 Section at St. John, N.B., was first, with No. 3 Section at Kingston, Ont., second, and No. 2 Section at Toronto, Ont., third.

Cavalry and Infantry.

44. The 77th Wentworth Regiment (rural corps), for the fourth year, was first in order of merit; its work deserves the highest approbation. The 66th Regiment 'Princess Louise Fusilliers' and the 8th Regiment 'Royal Rifles' were next in order of merit, respectively.

45. The inspection of the rural corps (cavalry and infantry) at the several camps showed a satisfactory improvement. The following corps were first and second, respectively:—

Military District No. 1.—33rd Huron Regiment; 30th Regiment, 'Wellington Rifles.'
" " 2.—34th Ontario Regiment; 12th Regiment, 'York Rangers.'
" " 3.—4th Hussars; 47th Frontenac Regiment.
" " 4.—42nd Lanark and Renfrew Regiment; 97th Regiment, 'Algonquin Rifles.'
" " 5. and 6.—11th Regiment, 'Argenteuil Rangers; 83rd Joliette Regiment.
" " 7.—92nd Dorchester Regiment; 89th Temiscouata and Rimouski Regiment.
" " 8.—67th Regiment, 'Carleton Light Infantry'; 71st York Regiment.
" " 9.—69th Annapolis Regiment; 78th Colchester, Hants and Pictou Regiment, 'Highlanders.'
" " 10.—12th Manitoba Dragoons; The 16th Light Horse.
" " 12.—82nd 'Abegweit Light Infantry' Regiment.

Cadet Corps.

46. The Mont St. Louis Cadets, of Montreal, were first, and the Highland Cadet Battalion, also of Montreal, second, in the competition amongst the Cadet Corps.

PERMANENT FORCE.

GENERALLY.

47. The strength of the Permanent Force is well up to the limited establishment allowed, the several units being in a generally efficient condition, so far as administration is concerned.

48. Confidential reports on officers, along the lines indicated in last year's report, were made during the year. The result has been beneficial to the efficiency of the Militia.

49. The Detachment of the Royal Canadian Engineers stationed at London has been moved to Stanley Barracks, Toronto, and that at St. Jean, P.Q., to Quebec.

50. The Kingston detachment of the Permanent Army Service Corps has, in addition to its usual work, taken over the supplying and catering for the Royal Military College which have heretofore been done by contract. The results have been very satisfactory to the Commandant and Cadets.

51. Barrack Officers have been appointed at Halifax, Quebec, Kingston and Esquimalt, and it is hoped to have others appointed as soon as accommodation for stores can be obtained.

52. During the year 15 officers were appointed to the several branches of the Permanent Force as follows.

Cavalry	1
Artillery	5
Engineers	3
Infantry	3
Canadian Permanent Army Service Corps	1
Canadian Army Pay Corps	2

53. The establishment of the several units of the Permanent Force were promulgated in April, 1908.

54. The Officer Commanding the Maritime Provinces Command has again called attention to the necessity which exists for increasing the strength of the several units of the Permanent Force stationed at Halifax. The District Officer Commanding No. 11 Military District also refers to the small strength of the units in garrison at Esquimalt.

ADMINISTRATION AND DISCIPLINE OF THE PERMANENT FORCE.

55. It is a pleasure to be able to report under this head that, in so far as the older corps, viz.: The Royal Canadian Dragoons, Royal Canadian Artillery and Royal Canadian Regiment, are concerned, their administration and discipline have been very good.

56. The Departmental and more recently organized corps have, however, much to learn, and it may become necessary to have the more senior officers attend, from time to time, at stations where combatant permanent troops are stationed.

ADMINISTRATION OF THE COMMANDS AND DISTRICTS.

57. On the whole, the administration of the Commands and Districts has shown fair progress, but before the ideal of complete decentralization can be realized, it will be necessary for the majority of Officers Commanding Commands and Independent Districts to understand more thoroughly than they do now both their responsibilities and the powers placed in their hands. Complete appreciation of the duties

of command, subject merely to the general supervision of Headquarters can only be attained gradually, and no doubt in the past considerable difficulties have faced officers in command, owing to defects in the formerly existing system of issuing and accounting for stores, and to the lack of complete regulations for the different services. Consequently progress has been somewhat slow, and too many questions which ought to have been decided locally have been referred to Headquarters.

58. Most of these defects have now been remedied, and up to date regulations complete for all branches of the Service have been drawn up. As Officers Commanding generally obtain more practice in Command and better knowledge of these regulations, decentralization will be more thorough and the administration of the Militia as a whole, especially as regards military law and discipline, will be considerably benefited.

STATE.

59. The following return shows the state of the Permanent Force on March 31, 1909:—

STATE OF PERMANENT FORCE, MARCH 31, 1909.

NAME OF CORPS.	Authorized Establishment.	Strength on Mar. 31, 1908.	Strength on Mar. 31, 1909.	Become Non-Effective.								Enrolled.					Composition of Present Contingent as to length of Service in Permanent Force				
				Discharged by Purchase.	Discharged—Unsuitable.	Discharged — Invalided.	Discharged — Time expired.	Deserted.	Dead.	Transferred.	Total.	Enlisted.	Re-Enlisted.	Transferred.	Returned from Desertion.	Total.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	Over 3 Years.	Serving with Pension from Imperial Government.
Royal Canadian Dragoons	169	226	179	18	1	4	7	37	....	....	67	17	2	....	1	20	13	67	40	57	3
Royal Canadian Mounted Rifles	82	107	79	22	9	1	4	19	1	6	62	28	2	....	4	34	15	34	11	18	....
Royal Canadian Horse Artillery	269	274	253	9	15	1	29	44	1	2	101	62	6	4	8	80	56	46	41	110	3
Royal Canadian Garrison Artillery	647	648	606	43	12	1	55	47	5	14	177	88	25	10	12	135	100	105	184	217	33
Royal Canadian Engineers	225	233	216	13	6	....	26	8	2	4	59	32	6	2	2	42	31	36	55	94	9
Royal Canadian Regiment	887	1,013	860	39	36	9	116	87	2	8	297	106	18	1	19	144	101	185	249	325	59
Canadian Permanent Army Service Corps	121	97	108	12	8	....	8	4	....	1	33	39	1	2	2	44	29	20	15	44	6
Permanent Army Medical Corps	64	76	70	8	2	3	5	3	....	....	21	10	1	3	1	15	11	14	10	36	6
Canadian Ordnance Corps	154	153	159	4	2	....	2	2	....	3	13	10	....	9	....	19	11	31	42	75	11
Canadian Army Pay Corps	18	17	25	....	....	....	....	....	....	....	....	5	....	3	....	8	5	3	7	10	4
Corps of Military Staff Clerks	31	32	33	1	4	....	1	....	....	1	7	4	1	3	....	8	4	5	4	20	....
	2,667	2,876	2,588	169	95	19	253	251	11	39	837	401	62	37	49	549	376	546	658	1,006	134

ACTIVE MILITIA (OTHER THAN THE PERMANENT FORCE).

ESTABLISHMENTS.

60. The establishments for the Active Militia other than the Permanent Force were authorized early in April, 1908, and during the year the following changes took place:—

Cavalry.

In Military District No. 10, *Three squadrons in the Province of Saskatchewan, to be known as the '20th Mounted Rifles', were authorized.

In Military District No. 13, two squadrons in Alberta, to be known as the '21st Alberta Hussars' were authorized. Also one independent squadron*, and one squadron of Mounted Rifles to form the nucleus of a new regiment, to be known as the '23rd Alberta Rangers.

In Military District No. 11, two squadrons of Canadian Mounted Rifles were authorized, one at Kamlops and the other at Vernon, B.C.

In Military District No. 1, the 24th Regiment (3 squadrons) was authorized.

Infantry.

'The Glengarry Highlanders' was removed from the list of corps of the Active Militia.

The 19th Regiment, Military District No. 2, and the 96th Regiment, Military District No. 10, were increased from four to six companies.

The 97th Regiment, Military District No. 2, the 53rd Regiment, Military District No. 6, and the 92nd Regiment, Military District No. 7, were increased from four to eight companies.

The 98th Regiment, Military District No. 10, and the 102nd Regiment, Military District No. 11, were authorized as four company regiments, the 99th Regiment, Military District No. 10, as a six company regiment, and the 100th Regiment, Military District No. 10, and the 101st Regiment, Military District No. 13, as eight company regiments.

ORGANIZATION.

61. It is regretted that, owing to lack of funds, the work of organization of new militia units in Military District No. 10, which had been progressing favourably, had to be temporarily stopped, more particularly in view of the fact of the importance of increasing the strength of the Militia in the West proportionately to the increase in population.

STAFF.

62. The following changes in the Headquarters, Command and District Staffs were made during the period covered by this report:—

Headquarters.

Major-General Sir P. H. N. Lake, K.C.M.G., C.B., was appointed Inspector General, from the Chief of the General Staff, *vice* Brigadier-General B. H. Vidal, deceased, and, also, as Chief Military Adviser.

Brigadier-General (temporary) W. D. Otter, C.V.O., C.B., was appointed Chief of the General Staff *vice* Major-General Sir P. H. N. Lake, K.C.M.G., C.B.

Colonel R. W. Rutherford, Royal Canadian Artillery, was appointed Master-General of the Ordnance *vice* Brigadier-General (temporary) W. H. Cotton.

*Owing to financial and other causes the organization of these squadrons has not yet been carried into effect.

Major R. A. Helmer was appointed Asst. Adjutant-General for Musketry from Deputy Asst. Adjutant-General for Musketry, *vice* Lt.-Colonel R. Cartwright, resigned.

Lt. and Brevet Captain G. B. Wright, Royal Canadian Engineers, was appointed Asst. Director of Surveys, from Staff Lieutenant, *vice* Captain W. B. Anderson, Royal Canadian Engineers.

Western Ontario Command.

Brigadier-General (temporary) W. H. Cotton was appointed Officer Commanding the Western Ontario Command *vice* Brigadier-General (temporary) W. D. Otter, C.V. O., C.B., appointed Chief of the General Staff

Lt.-Colonel J. A. Grant, Permanent Army Medical Corps, was appointed Acting Principal Medical Officer, Western Ontario Command, from Acting Principal Medical Officer, Military District No. 11, *vice* Lt.-Colonel W. Nattress, deceased.

Quebec Command.

Captain L. Leduc, Royal Canadian Regiment, was appointed District Staff Adjutant, Military District No. 7, *vice* Major A. D'Orsonnens, resigned.

Lt.-Colonel A. Roy, M.V.O., was appointed Chief Staff Officer, Quebec Command, from District Officer Commanding Military District No. 7, *vice* Lt.-Colonel O. C. C. Pelletier, transferred.

Lt.-Colonel O. C. C. Pelletier was appointed District Officer Commanding Military District No. 7, from Chief Staff Officer, Quebec Command.

Maritime Provinces Command.

Lt.-Colonel W. M. Humphrey was appointed Chief Staff Officer, Maritime Provinces Command, from Deputy Asst. Adjutant-General, *vice* Major D. S. McInnes, D.S.O., Royal Engineers.

Captain J. A. Benyon, R.O., was appointed Deputy Asst. Adjutant-General (on probation) *vice* Lt.-Colonel W. M. Humphrey, transferred.

Military District No. 10.

Captain H. D. B. Ketchen, Royal Canadian Mounted Rifles, was appointed District Staff Adjutant, Military District No. 10.

Military District No. 11.

Major G. C. Hart, Permanent Army Medical Corps, was appointed Acting Principal Medical Officer *vice* Lt.-Colonel J. A. Grant, transferred.

Military District No. 13.

Captain E. F. Mackie, D.S.O., Royal Canadian Mounted Rifles, was appointed District Staff Adjutant, Military District No. 13.

63. It is with much regret that the death of Colonel T. D. B. Evans, C.B., A.D.C., late District Officer Commanding Military District No. 10, which occurred on the 23rd August, 1908, has to be recorded. This Officer served in the Northwest Rebellion, and, also, commanded the 2nd Regiment, Canadian Mounted Rifles during the South African campaign. For his services during the latter war he was mentioned in despatches, received the brevet of Colonel, and was appointed a Companion of the Order of the Bath.

REGULATIONS.

64. The following British Regulations have been amended and adopted as Canadian books:—

'Regulations for Army Ordnance Services,' Part II.

'Regulations for Magazines and Care and Preservation of War Materiel.'

65. The following Regulations were prepared and issued:—

'Standing Orders for the Canadian Ordnance Corps.'
'Regulations for Canadian Ordnance Service, Part I.'
'Regulations for the Equipment of the Canadian Militia, Part I.'
'Standing Orders for the Canadian Permanent Army Service Corps.'
'Regulations for Engineer Services, Canada.'

INSTRUCTION.

GENERALLY.

66. The attendance of officers at the Royal Schools of Instruction has been satisfactory, and the syllabus prescribed carried out in an efficient manner. There is still, however, a tendency on the part of officers to make the periods of instruction in these schools as short as possible and to resort to provisional schools at local headquarters whenever possible.

67. Provisional Schools of Instruction were held as under:—

Cavalry.—Calgary, Alta.; Charlottetown, P.E.I.; Edmonton, Alta.; Morden, Man.; Saskatoon and Lloydminster, Sask.

Artillery.—Moncton, N.B.; Ottawa, Ont.; St. John, N.B.; Victoria, B.C.

Infantry.—Edmonton, Alta.; Galt, Ont.; Moncton, N.B.; Montreal, P.Q.; Regina, Sask.; Port Arthur, Ont.; Saskatoon, Sask.; Sherbrooke, P.Q.; St. Hyacinthe, P.Q.

Canadian Army Service Corps.—Winnipeg, Man.

Signalling.—Sherbrooke and Quebec, P.Q.; Woodstock, St. Thomas, Brockville, Guelph, Sarnia and Perth, Ont.

68. Five officers and 10 non-commissioned officers successfully passed the Artillery Staff Course held during the year, and 10 non-commissioned officers of the Royal Canadian Regiment qualified as instructors in both the English and French languages.

69. Ten officers of the Active Militia were attached to the units of the Permanent Force for duty and a 'long course' with a view to qualifying for commissions in the Permanent Force.

70. The results of the promotion examinations of the Imperial Army held in May and November, 1908, were as follows:—

At the May examination 27 officers of the Permanent Force presented themselves, 20 passed and 7 failed (4 in one subject and 3 in more than one subject); 6 officers of the Royal Canadian Artillery wrote on the Artillery subject 'e,' all of whom passed.

At the November examination 17 officers presented themselves, 15 passed and 2 failed; three officers of the Royal Canadian Artillery wrote on subject 'e,' all of whom passed.

71. Two candidates presented themselves for the literary examination held in May, 1908, by the Board of Civil Service Examiners, but only one passed successfully; at the October examination 7 candidates presented themselves, of whom 4 passed.

72. Nine officers attended that portion of the 'long course' required to be taken at the Royal Military College in the spring of 1908, of whom 7 passed. There were also present during the course 2 officers of the Permanent Force preparing for promotion examination. In the autumn of 1908, 4 officers were present at the Royal Military College, all of whom passed, and, in addition, there were 3 officers of the Permanent Force preparing for promotion examination.

INSTRUCTION IN ENGLAND.

73. The following officers underwent instruction in England and are still in attendance:—

Staff College.—Capt. W. B. Anderson, Royal Canadian Engineers.

Gunnery Staff Course.—Lieut. W. G. Beeman, Royal Canadian Artillery; Lieut. A. S. Wright Royal Canadian Artillery.

Course in Military Engineering.—Lieut. J. A. Keefer, Royal Canadian Engineers; Lieut. C. B. Russell, Royal Canadian Engineers.

ROYAL MILITARY COLLEGE.

74. Forty-seven candidates presented themselves for the entrance examination to the Royal Military College in May, 1908, 38 of whom were successful in passing the same.

CANADIAN SCHOOL OF MUSKETRY.

75. Owing to the Quebec Tercentenary celebration, the summer course was cancelled. The usual autumn course was carried out with an attendance of 17 officers and 35 non-commissioned officers, of whom 5 officers and 1 non-commissioned officer obtained the 'Distinguished' certificate, 10 officers and 31 non-commissioned officers obtained the 'Musketry' certificate, and 2 officers and 3 non-commissioned officers failed. The standard of instruction and examination was fully maintained.

76. The Commandant of the Canadian School of Musketry has reported that the officers and subordinate staff rendered him invaluable assistance; but again advocates the establishment of a permanent musketry staff.

SCHOOLS OF INSTRUCTION.

77. The number of certificates issued from all Schools of Instruction during the year was as follows:—

Return of Certificates Granted between April 1, 1908, and March 31, 1909.

Name of School.	Officers.							N. C. Officers.						Signalling.					Army Service Corps.		Musketry.								
														Officers.		N. C. O.'s													
	Long Course.	Artillery Staff Course.	Field Officers.	Captains.	Subalterns.	Technical Engineers.	Equitation.	Artillery Staff Course.	Sergt. Instructors.	Sergeants.	Corporals.	Bombardiers.	Technical Engineers.	Grade 'A.'	Grade 'B.'	Asst. Instructors.	Grade 'A.'	Grade 'B.'	Officers.	N. C. Officers.	Distinguished.	Qualified.	District Intelligence Officers.	Sub-District Intelligence Officers.	Cadet Instructors.	Trumpeters and Buglers.	Instructors Physical Training.	Caretakers.	Total.
Royal Schools of Cavalry, Toronto, O., and St. Jean, R, Q.	2	..	8	13	31	..	20	..	2	7	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	91
Royal School of Instruction, Winnipeg	..	..	*7	†5	‡16	..	9	..	2	1	§11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	54
Royal School of Artillery (Field) Kingston	..	..	1	3	15	..	..	..	2	16	29	10	..	..	..	..	..	..	..	..	..	..	..	..	..	14	..	3	93
Royal School of Artillery (Garrison) Halifax	3	..	..	..	1	..	..	..	..	7	2	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17
Royal Sch. of Artillery (Garrison), Quebec and Esquimalt	..	5	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
Royal School of Infantry, London	..	..	3	6	12	..	..	..	4	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	42
Royal School of Infantry, Toronto	5	..	6	17	30	..	..	..	5	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	69
Royal School of Infantry, Fredericton	..	..	1	4	14	..	..	..	a4	b4	a6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33
Royal School of Infantry, Halifax	1	..	..	2	5	..	..	..	5	13	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	45
Royal School of Infantry, Quebec	1	..	6	9	14	..	..	..	1	2	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39
Royal Canadian Engineers	..	..	..	..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Cavalry (Provisional Schools)	..	..	7	10	11	..	..	..	5	28	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	87
Artillery (Provisional Schools)	..	..	1	1	6	..	..	..	2	12	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35
Corps of Guides (Provisional Schools)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..	10
Infantry (Provisional Schools)	..	..	11	27	90	..	..	..	1	42	38	..	..	..	..	..	..	..	..	..	..	..	..	..	34	..	..	..	243
Army Service Corps	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	47	..	..	..	..	..	..	..	..	51
Medical Corps (Special Courses)	..	..	8	20	..	..	..	..	3	19	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67
Canadian School of Musketry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	41	..	..	..	..	..	..	47
Signalling (Provisional Schools)	..	..	..	..	..	..	..	..	..	..	..	..	..	10	18	18	43	142	..	..	..	..	..	..	..	..	..	..	231
Equitation (Board of Examiners)	..	..	..	..	..	..	68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	68
	14	5	59	117	245	..	97	10	36	167	169	14	9	10	18	18	43	142	2	47	6	41	..	10	34	27	3	3	1,346

*1. Infantry. †3. Infantry. ‡10. Infantry. §2. Infantry. *a* Qualified to instruct in French and English. *b* Qualified to instruct in French and English.

COMMISSIONS AND WARRANTS.

78. The number of commissions in the Active Militia issued during the period under review was 454, and warrants to specially qualified non-commissioned officers, 24.

MEDALS.

79. The number and description of medals issued between April 1, 1908 and March 31, 1909, were as follows:—

Colonial Auxiliary Forces Officers' Decoration	49
Long Service Medals	130
Long Service and Good Conduct Medals, (Permanent Force)	5
General Service Medal	33
Northwest 1885 Rebellion Medal	1

CADET CORPS.

80. It is noted with pleasure that as each year passes an increased general interest is manifested in the cadet movement as evidenced by the additional number of corps which have been gazetted. On March 31, 1909, there were under the control and supervision of the Department, 176 cadet corps, aggregating 288 companies, and with an enrolled membership (at an average of 40 cadets per company) of over 11,000. Notwithstanding the disbandment of 12 corps with 18 companies, there has been a net increase during the year of 31 cadet corps, with 78 companies and 3,000 cadets. These new formations have been fairly widely distributed, though increases in the Province of Quebec and the Northwest Provinces have been very marked. Increasing interest in the efficiency of cadet corps affiliated with the schools is shown by Educational Authorities, and a larger number of school teachers are each year taking the course of instruction, during the vacation months, to qualify themselves as instructors. The granting of the rank of lieutenant in the Militia to all teachers so qualifying and capable of instructing a corps of cadets has proved a benefit from which nothing but good results can accrue.

81. The question of a more suitable arm than that at present in use by cadet corps has received careful consideration, and it is expected that it may be possible during the summer of 1909 to substitute one of the early issues of the 'Ross' rifle for the converted 'Snider' and 'Martini-Henry' rifles at present in use. In addition to being much lighter and more easily handled by boys, the new arm will give cadets a rifle capable of using service ammunition, and be in fact an efficient weapon in place of a cumbersome toy.

82. The encouragement to cadets by the action of the Dominion of Canada Rifle Association and the Canadian Rifle League in co-operating with the Department in making it possible for cadet teams from Halifax, Nova Scotia, and Dundas, Ontario, to visit Ottawa during the Dominion of Canada Rifle Association Meeting, 1908, has been much appreciated.

83. Another item of encouragement for Canadian cadets was the gift of a large Union Flag from the gentlemen of the Imperial Colonial Club of London to the Dundas High School of Dundas, Ontario, in recognition of a scholar from that school (Cadet Captain Knowles) having been captain of the team representing Canada in the competition for Lord Roberts' trophy, 1908. The Canadian team in this competition, secured only 6th place, but, it is trusted that another year conditions may be more favourable for their obtaining a more advanced position.

84. During the year the policy has been followed of closely checking inspection reports submitted upon the annual inspections of cadets, and, in all cases, criticisms

made by the Inspecting Officers have been commented on and communicated to the corps concerned. This is a large factor for efficiency, and is one of the most important methods whereby the Department can co-operate in furthering and developing the cadet movement.

PHYSICAL AND MILITARY TRAINING IN PUBLIC SCHOOLS.

85. A system of physical training and instruction in elementary military drill was inaugurated in the Public Schools of the Province of Nova Scotia in September, 1908, and is now in actual operation in a large number of schools throughout that province, and appears to be receiving the cordial support of the Educational Authorities, the enthusiastic co-operation of the teachers, and the sympathy of all interested in the schools.

86. This important innovation was the outcome of last year's negotiations with the Premier of Nova Scotia, the Superintendent of Education and other provincial authorities upon the proposal to introduce such instruction in the Nova Scotia public schools, with the view of improving the health and bearing of pupils generally, the better inculcation of discipline and habits of system and order, as well as providing the growing youth of the country with a knowledge of elementary military movements, and, in addition, for the more advanced boys the handling of fire-arms and teaching of the rudiments of musketry. The value of such a training from the standpoint of national defence cannot fail to be very great, since much of the cost and trouble of instructional work for recruits in the event of a mobilization will be obviated, in view of the previous training of boys in the public schools in those elementary exercises which are the basis of all military evolutions. In addition, the instruction in proper breathing and bearing, as well as the healthful exercise imparted to boys and girls alike, cannot fail to do much to counteract that scourge—tuberculosis—and thus be of inestimable value to the welfare of our race in its effect upon future generations.

87. Upon the acceptance of the scheme by the Province of Nova Scotia, the first instructional class for teachers (both male and female) was held at Sackville, N.B., in July, 1908. This was followed by a course at Wellington barracks, Halifax, N.S., of more advanced military training for male teachers desiring to qualify as cadet instructors, and courses have since been held for all teachers at Truro, Sydney, Sydney Mines, North Sydney and Antigonish. In all, about 250 teachers have already qualified as instructors in physical training, and some 20-25 as cadet instructors. With a view to enabling these latter to enjoy under the existing law the allowances contemplated as suitable recognition for their services, a corps of school cadet instructors has been authorized, with an establishment, for a beginning, of 50 lieutenants. School teachers qualifying as cadet instructors, and actually instructing a duly authorized cadet corps, will, upon the recommendation of the District Officer Commanding, be appointed lieutenants in the Militia and paid an annual allowance in accordance with the following scale:—

When the cadet corps instructed has less than 20 cadets—No allowance.
When the cadet corps instructed has from 21 to 50 cadets—$1 per cadet.
For each additional cadet enrolled up to a maximum of 100—75c. per cadet.
For each additional cadet enrolled in excess of 100 up to 125—50c. per cadet.

With no additional allowance for any cadets in excess of 125 enrolled in any one corps under one lieutenant instructor.

88. These allowances are to be paid upon the certificate of the inspecting officer making the annual inspection that the corps has given evidence before him of being well instructed and efficient.

89. An event of much moment in connection with this scheme of physical training in the schools was the generous donation, in March last, by the Right Honourable Lord

Strathcona and Mount Royal, G.C.M.G., High Commissioner for Canada in the United Kingdom, of the sum of $300,000 to found a fund for the encouragement of physical and military training among the students of the public schools of Canada. The gift has been received and accepted by the Parliament of the Dominion, and a committee of management has taken charge. Rules in accordance with the conditions laid down in the deed of gift have been drawn up for the management and utilization of the fund, and published for general information. The example set by Lord Strathcona and Mount Royal for wealthy citizens to participate in a national work of great magnitude, as is the physical training scheme, is one that cannot but be of the utmost value in all respects.

90. On the whole, the initiation of this important movement and the progress made in the first year of its introduction in Canada has been most encouraging. Reports from Nova Scotia indicate that practical acquaintance with the system has changed indifference and hostility to friendliness and enthusiasm and there is already promise of results, as an outcome of this training, that will prove of immense value, in many ways, to the country in the future.

VETERINARY SERVICE.

91. The Veterinary Service has been improved by the supply of veterinary field chests which are now furnished, fully equipped, to each mounted unit.

ISSUES AND RECEIPTS OF ARMS, AMMUNITION, ETC.

92. The decentralization of Ordnance work inaugurated by Militia Order No. 16 of 1908, has made good progress. Each District is now practically self contained as regards the issues and receipts of arms, ammunition and ordnance stores generally. When proper accommodation is provided the decentralization of clothing will be taken in hand in order that all requirements (for peace and mobilization) of each Military District may be ararnged for through the District Ordnance Office.

The procedure in dealing with Contract Demands on account of the estimates of the different Directors at Headquarters has been put on a workable basis in the office of the Principal Ordnance Officer, but this work is greatly hampered by the lack of sealed patterns. The work of sealing patterns goes on daily and it is hoped shortly to have samples or specifications of all articles in use by the Militia.

ARMAMENT.

FIELD ARTILLERY.

93. The delivery of 36 Q. F. 18-pr. guns and carriages was completed during the year and eight field batteries will be re-armed with this equipment before annual training, 1909; also, limbers and wagons (battery line) for these guns were received.

94. It is hoped that the re-armament of the whole of the field artillery will be effected before the Training Season of 1912.

95. A pattern of runner for artillery vehicles, for winter use, has been under trial, and has been satisfactorily reported on. Steps are being taken for its adoption and manufacture.

HEAVY ARTILLERY.

96. The order for three four-gun batteries B. L. 60-pr. has been completed, so far as delivery of the guns and carriages is concerned; the limbers are still under manufacture.

97. Some important modifications have lately been introduced in the 60-pr. carriages and it is proposed to carry these out before the issue of the equipment to batteries. It is, however, anticipated that the equipment will be ready for issue before annual training, 1910.

SMALL ARMS.

98. The available supply of small arms has been very materially increased by the output of the Ross Rifle factory during the past year.

99. The issue of the bayonet for the Ross Rifle was commenced during the year and a large number will be in the hands of the troops before the coming training.

100. The adoption by other countries of high velocity ammunition of small calibre cannot be disregarded. This, together with the possible appearance, in the not far distant future, of a satisfactory form of automatic rifle, may cause a revolution in the present form of small arms which Canada will, in course, have to follow, if she is to remain abreast of modern conditions.

AMMUNITION.

101. The supply of gun and small arm ammunition, equipment and reserve is, on the whole, satisfactory, a marked increase again being noticeable. The manufacture of Q. F. 18-pr. ammunition has not yet been commenced in Canada; but, with the approaching completion of the machinery, an output may be looked for during the coming financial year.

TECHNICAL INSPECTION OF WAR MATERIÉL AND EXAMINATION OF EXPLOSIVES.

102. Considerable progress was made during the year as regards the technical inspection of field and heavy artillery equipment, and the carrying out of modifications and repairs thereto. Armament artificers visited all batteries armed with B. L. 12-pr. Mark II equipment. The Q. F. 4·7 in. and B. L. 12-pr. Mark I equipments, which were sent to Petawawa for practice purposes, were dealt with by the artificers at the camp. Further work will be carried out during the present year on the various equipments available at Petawawa.

103. It is proposed to form an Inspector of Ordnance Machinery Section in the Canadian Ordnance Corps as soon as possible.

104. The periodical and special examination of explosives by Inspecting Ordnance Officers has been arranged for by the division of the 13 Military Districts amongst three qualified Inspecting Officers.

ENGINEER SERVICES.

105. Owing to the large reduction in the funds set apart for these services on account of the decreased revenues of the country, a large amount of work provided for could not be gone on with. Nevertheless, as the following statement shows, extensive Engineer Services were performed during the year, all of which were carried out to the best possible advantage, those at Petawawa being particularly important:—

MILITARY DISTRICT NO. 1.

Military properties were maintained and general repairs and improvements carried out, including the renovation of the Paisley Armoury and rather extensive repairs to the London Drill Hall.

Total expenditure, Military District No. 1, 1908-9, $3,486.

MILITARY DISTRICT NO. 2.

A great number of small repairs were carried out in this District, and all military properties generally maintained.

An improved water system was laid on the old grounds, Niagara Camp.

It is proposed to prepare the new grounds, recently purchased at Niagara, for camp purposes. This will involve the construction of camp buildings, installation of water supply, drainage, arrangements for sanitary requirements, &c.

Total expenditure, Military District No. 2, 1908-9, $9,742.

MILITARY DSTRICT NO. 3.

Tête-de-Pont Barracks were renovated and placed in a sanitary and habitable condition, pending the provision of new barracks.

The Barriefield Camp Grounds were much improved during the year by additional drainage. Furthermore, a permanent pump-house, installed with a pumping engine, has been provided, and the sinking of an artesian well furnishes an ample quantity of pure water for all purposes.

Incidental repairs to Martello Towers, Kingston, were carried out.

A number of small repairs were required to maintain the various military properties in this District.

Total expenditure, Military District No. 3, 1908-9, $8,495.

ROYAL MILITARY COLLEGE.

All buildings were kept in proper repair, including the salient walls at Fort Frederick, which needed pointing.

It is proposed to place a 6-inch water main in the outer and inner inclosures of the college grounds, with hydrants conveniently placed, to afford fire protection to all buildings, as well as for flushing and domestic purposes.

Regular tests are made of the water, and in only one instance has the filtered water shown any signs of contamination. The drinking water is, however, sterilized, in addition to being filtered.

Total expenditure, Royal Military College, 1908-9, $6,639.54.

MILITARY DISTRICT NO. 4.

All buildings were kept in proper repair. The Lansdowne drill hall has been completely renovated.

The Ottawa city water system has been extended to Rockliffe Rifle Range, and was available for the September Militia Camp.

Total expenditure, Military District No. 4, 1908-9, $6,731.

MILITARY DISTRICT NO. 5.

All military properties in this District were kept in proper repair.

The Pointe-aux-Trembles and Three Rivers Rifle Ranges, as well as the Montreal Drill Hall, Royal Scots Armoury, Engineers Armoury and Victoria Rifles Armoury, were maintained in good condition.

Total expenditure, Military District No. 5, 1908-9, $8,681.

MILITARY DISTRICT NO. 6.

A new drainage system was laid at St. Johns Barracks, connecting the Barracks, system with that of the Corporation.

At Sherbrooke rather extensive temporary repairs were carried out to the Old Court House which provides quarters for the local militia until the new drill hall is completed.

It was found that no convenient site was available at St. Johns for a Rifle Range; therefore, a 30 yards range has been constructed to enable the permanent corps at that Station to carry out their rifle practice.

Total expenditure, Military District No. 6, 1908-9 (including the cost of the drainage system, $3,300), $12,377.

MILITARY DISTRICT NO. 7.

A large force of men were steadily employed upon the repairs to the cliff over Dufferin Terrace at Quebec. These repairs are nearly completed.

The Fortification Walls were generally repaired.

At the Citadel the store building damaged by fire was repaired, and the military hospital also underwent extensive repairs and is now in use as an office building.

The Married Quarters in St. Louis street were renovated and fitted as an hospital.

At the Dominion Arsenal, a new gas plant was constructed for the purpose of manufacturing gas for annealing purposes at about one-fourth the price it could be obtained from the city.

Two new laboratory buildings for the Arsenal were constructed in the Cove Fields.

A macadamized road was constructed from St. Joseph de Lévis to Engineers Park and No. 1 Fort. An additional store shed was constructed at Engineers Park, Lévis, and two casemates fitted up as caretaker's quarters in No. 1 Fort.

Total expenditure for Military District No. 7, 1908-9, $96,612 (including Dominion Arsenal, Lévis Batteries and Terrace Cliff.)

MILITARY DISTRICT NO. 8.

Military properties were kept in proper repair and maintained. At Sussex Camp Grounds, dykes were placed along the river bank, bordering Government property, to protect it.

Total expenditure, Military District No. 8, 1908-9, $8,307.

MILITARY DISTRICT NO. 9.

Properties maintained and kept in a proper state of repair, including rather extensive repairs to Middleton and Lunenburg Armouries.

General improvements were made at Aldershot Camp, including considerable clearing and seeding of the grounds.

Total expenditure, Military District No. 9, 1908-9, $6,513.

HALIFAX GARRISON.

At Halifax Garrison, the fortification works were generally repaired, improvements were made to the Station Hospital, baths and lavatories placed in the Officers' Block, Wellington Barracks, and baths and sculleries in each of the quarters at Pavilion Barracks.

Camp Mess Buildings were constructed at McNab's Island, and a water supply installed.

Total expenditure, Halifax Garrison, 1908-9, $47,700.

MILITARY DISTRICT NO. 10.

Military properties were maintained and kept in a proper state of repair. A water supply was installed for the Winnipeg camp. A permanent reservoir constructed for the water supply at Brandon camp, and a railway siding put in.

Total expenditure, Military District No. 10, 1908-9, $5,690.

MILITARY DISTRICT NO. 11.

Military properties were maintained and kept in a proper state of repair. The north end wall of Vancouver Drill Hall put in good repair. A 6-inch B. L. gun from Esquimalt was mounted in the Drill Hall at Victoria, for instructional purposes.

Total expenditure, Military District No. 11, 1908-9, $2,490.

ESQUIMALT GARRISON.

Fortifications were maintained in a proper state of repair. Block floor of gun shed at Work Point Barracks renewed.

Total expenditure, Esquimalt Garrison, 1908-9, $5,320.

MILITARY DISTRICT NO. 12.

Military properties in this district were kept in a state of good repair.

Total expenditure, Military District No. 12, 1908-9, $989.

PETAWAWA.

Water Supply.

The construction of water supply systems for drinking, fire protection and sewage disposal, was commenced and is now being completed.

Septic Tank Sewage System.

This system for sewage disposal entailed laying some 2¾ miles of drain pipe, the construction of two septic tanks in concrete and the necessary filter beds, and the construction and fitting of lavatories for all corps on the permanent Camp Grounds. The system is now almost completed.

Camp Telephones.

Permanent telephone lines were laid to Pembroke, Petawawa village and various points on the Artillery Ranges. All corps headquarters and offices are now fitted with telephone communications, and the system is worked from a central exchange.

Buildings.

A slaughter house (with chilling room and ice-houses), also mess buildings for the officers and sergeants, Royal Canadian Dragoons, and men of the Canadian Permanent Army Service Corps were built.

Roads.

The metalling of camp roads was commenced, but little progress was made. It is hoped to carry out a certain amount of this work each year.

Railway Platforms.

These platforms were extended on both sides of the camp station, and now provide good facilities for loading and unloading stores.

Wharf.

A wharf for water transport is now being completed.

Painting Buildings.

This work was carried out as time permitted during the year.

Artillery Ranges.

New ranges were cleared and prepared, giving much greater scope for artillery practice.

106. The following statement gives a list of armouries and drill halls, showing those provided for and those still to be provided for. On reference to this list, it will be seen that there are 349 squadrons, batteries or companies to be provided with armoury accommodation, and bearing in mind the fact that every year this number is being added to by the creation of new units, particularly in the West, it is apparent that an increased annual vote for this service will be required in future, and large amounts of money should not be spent on individual drill halls until all corps are provided with proper accommodation for the protection of their stores and equipment.

STATEMENT SHOWING TROOPS PROVIDED WITH ARMOURIES (OWNED BY THE GOVERNMENT, OR RENTED FOR LONG PERIODS), AND THOSE YET TO BE PROVIDED.

District.	Provided for.	Not provided for.	Total.
Military District No. 1—			
Cavalry	3 Squadrons	4 Squadrons	7 Squadrons.
Artillery (Field)	3 Batteries	Nil	3 Batteries.
Infantry	40 Companies	46 Companies	86 Companies.
Army Service Corps	1 Company	Nil	1 Company,
Field Ambulance	1 "	1 Company	2 Companies.
Military District No. 2—			
Cavalry	9 Squadrons	6 Squadrons	15 Squadrons.
Artillery (Field)	3 Batteries	Nil	3 Batteries.
Engineers	1 Company	"	1 Company.
Infantry	101 Companies	57 Companies	158 Companies.
Army Service Corps	3 "	Nil	3 "
Army Medical Corps	4 "	Nil	4 "
Military District No. 3—			
Cavalry	2 Squadrons	6 Squadrons	8 Squadrons.
Artillery (Field)	2 Batteries	1 Battery	3 Batteries.
Artillery (Garrison)	1 Company	Nil	1 Company.
Infantry	29 Companies	43 Companies	72 Companies.
Army Service Corps	1 Company	Nil	1 Company.
Army Medical Corps	1 "	Nil	1 "
Military District No. 4—			
Cavalry	2 Squadrons	2 Squadrons	4 Squadrons.
Artillery (Field)	1 Battery	2 Batteries	3 Batteries.
Engineers	1 Company	Nil	1 Company.
Infantry	25 Companies	19 Companies	44 Companies.
Army Service Corps	Nil	1 Company	1 Company.
Field Ambulance	Nil	1 "	1 "
Corps of Guides	1 Company	Nil	1 "
Military District No. 5—			
Cavalry	1 Squadron	1 Squadron	2 Squadrons.
Artillery (Field)	2 Batteries	2 Batteries	4 Batteries.
Artillery (Garrison)	3 "	Nil	3 "
Engineers	1 Company	"	1 Company.
Infantry	53 Companies	23 Companies	76 Companies.
Army Service Corps	Nil	1 Company	1 Company.
Field Ambulance	Nil	2 Companies	2 Companies.
Military District No. 6—			
Cavalry	4 Squadrons	16 Squadrons	20 Squadrons.
Artillery (Field)	1 Battery	1 Battery	2 Batteries.
Infantry	12 Companies	4 Companies	16 Companies.
Army Service Corps	1 Company	Nil	1 Company.
Field Ambulance	1 "	"	1 "

STATEMENT SHOWING TROOPS PROVIDED WITH ARMOURIES (OWNED BY THE GOVERNMENT, OR RENTED FOR LONG PERIODS), AND THOSE YET TO BE PROVIDED.

District.	Provided for.	Not provided for.	Total.
Military District No. 7—			
Cavalry	4 Squadrons.	Nil	4 Squadrons.
Artillery (Field)	1 Battery	1 Battery	2 Batteries.
Artillery (Garrison)	1 Company	2 Companies	3 Companies.
Infantry	16 Companies	64 Companies	80 "
Army Service Corps	1 Company	Nil	1 Company.
Field Ambulance	1 "	"	1 "
Military District No. 8—			
Cavalry	3 Squadrons	Nil	3 Squadrons.
Artillery (Field)	2 Batteries	1 Battery	3 Batteries.
Artillery (Garrison)	1 Company	2 Companies	3 Companies.
Engineers	1 "	Nil	1 Company.
Infantry	14 Companies	26 Companies	40 Companies.
Army Service Corps	Nil	1 Company	1 Company.
Field Ambulance	Nil	1 "	1 "
Signalling Corps	1 Company	Nil	1 "
Military District No. 9—			
Cavalry	4 Squadrons.	Nil	4 Squadrons.
Artillery (Field)	1 Battery	1 Battery	2 Batteries.
" (Garrison)	4 Companies	4 Companies	8 Companies.
Infantry	23 "	33 Companies	56 "
Army Service Corps	1 Company	Nil	1 Company.
Field Ambulance	1 "	"	1 "
Military District No. 10—			
Cavalry	7 Squadrons	8 Squadrons	15 Squadrons.
Artillery (Field)	1 Battery	Nil	1 Battery.
Infantry	10 Companies	30 Companies	40 Companies.
Army Service Corps	1 Company	Nil	1 Company.
Field Ambulance	1 "	"	1 "
Signalling Corps	1 "	"	1 "
Military District No. 11—			
Cavalry	1 Squadron	1 Squadron	2 Squadrons.
Artillery (Garrison)	3 Companies.	Nil	3 Companies.
Infantry	14 "	3 Companies.	17 "
Field Ambulance	1 Company	Nil	1 Company.
Military District No. 12—			
Cavalry	1 Squadron	Nil	1 Squadron.
Artillery (Garrison)	3½ Batteries	½ Battery	4 Batteries.
Infantry	1 Company	7 Companies	8 Companies.
Signalling Corps	1 "	Nil	1 Company.
Field Ambulance	1 "	"	1 "
Corps of Guides	1 "	"	1 "
Military District No. 13—			
Cavalry	2 Squadrons	13 Squadrons.	15 Squadrons.
Artillery (Field)	Nil	1 Battery	1 Battery.
Infantry	Nil	8 Companies	8 Companies.
Field Ambulance	Nil	1 Company	1 Company.

RÉSUME.

Corps.	Provided for.	Not Provided for.
Cavalry	43 Squadrons	57 Squadrons.
Field Artillery	17 Batteries	10 Batteries.
Garrison Artillery	16½ Companies	8½ Companies.
Engineers	4 "	Nil.
Infantry	338 Companies	363 Companies.
Signalling Corps	3 "	Nil.
Army Service Corps	9 "	3 Companies.
Army Medical Corps	12 "	6 "
Corps of Guides	2	Nil.

MILITARY PROPERTIES.

107. The rent collected on account of Military properties under lease, during the year ended March 31, 1909, was as follows:—

Military District	No. 1,	Headquarters,	London, Ont.	$	73 00
"	" 2,	"	Toronto, Ont.		256 25
"	" 3,	"	Kingston, Ont. . . .		487 10
"	" 4,	"	Ottawa, Ont.		101 00
"	" 5 & 6,	"	Montreal, Que. . . .		182 00
"	" 7,	"	Quebec, Que.		1,739 93
"	" 8,	"	St. John, N.B. . . .		158 50
"	" 9,	"	Halifax, N.S. . . .		300 88
"	" 11,	"	Victoria, B.C. . . .		962 00
"	" 12,	"	Charlottet'n, P.E.I		1 00
					$4,261 66

LANDS ACQUIRED.

108. The following lands were acquired during the period under review:—

Kentville, N.S.—

As the camp grounds at Aldershot were too confined for the training of troops under modern conditions, and as, moreover, part of the adjacent property was within the danger zone of the rifle range, some 344 additional acres were acquired.

Virden, Man.—

A site for a rifle range in this place was acquired. One hundred and forty-four acres of the area required was purchased outright and the remainder, some 145 acres, leased for a term of years.

Goderich, Ont.—

Some 14 acres were acquired as an addition to the Rifle Range site Goderich, in order to insure absolute safety.

Medicine Hat, Alta.—

A site for an Armoury was deeded to the Crown by the town of Medicine Hat, free.

Durham, Ont.—

A site for an Armoury was deeded to the Crown by the town of Durham, free.

Bowmanville, Ont.—

A site for a new Armoury at Bowmanville was given to the Crown by the West Durham Agricultural Society, in exchange for the old Armoury building and site.

Charlottetown, P.E.I.—

A small piece of land adjoining the Rifle Range at Charlottetown was acquired as a site for the erection of a building for the use of competitors during the meeting of the Provincial Rifle Association, and, also, to provide a training ground for the 4th Regiment, Canadian Artillery, with their 4·7 inch guns horsed.

Summerside, P.E.I.—

A new site for a drill shed at this place was purchased and the old drill shed and site sold to the town of Summerside.

Quebec, P.Q.—

'E' Magazine was exchanged with the Sisters of the Hotel Dieu, Quebec, for the property known as No. 4 Martello Tower, and it is the intention to convey this latter property to the National Battlefields Commission in order that it may be preserved and maintained.

Elora, Ont.—

The site on which the present Armoury is situated was granted to the Crown by the municipality on the understanding that the inhabitants of Elora should have the use of the Armoury building when not required for military purposes.

Niagara Falls, Ont.—

A site for a new armoury at this place was granted to the Crown by the town of Niagara Falls in exchange for the old armoury building and site.

Truro, N.S.—

Some 294 acres in the vicinity of Truro were acquired as a site for a rifle range.

Petawawa Camp Site—

The acquisition of all the various properties comprising the camp site is now nearly completed. Fifteen additional properties, some 2,232 acres in area, were acquired during the year at a cost of $24,802.23, legal fees included—an average of $11.11 per acre, and it is satisfactory to note that, amongst the properties thus acquired, are included five of the ten properties which it was mentioned in last year's report that the Department would probably be obliged to expropriate, the owners having eventually come to terms. As regards the other five owners, as they have absolutely refused to accept the prices offered their properties have been expropriated. The total number of properties acquired up to March 31, 1909, is 129, comprising some 19,630 acres, at a total cost of $160,865.70, or $8.19 per acre.

Brockville, Ont.—

The negotiations which were in progress at the end of the last fiscal year for the acquisition of three additional properties in the rear of the rifle range, in order to insure absolute safety, have been satisfactorily concluded; two of the property holders have been bought out, and a 99 year lease of shooting rights over the land of the third owner obtained.

Fraserville, Que.—

A site for an armoury was acquired.

Paisley, Ont.—

A site for an armoury was acquired.

EXPENDITURE.

109. The expenditure for 1908-9 was $6,484,806.40, a decrease of $311,281.85 compared with that for the previous year. The financial statement for the year, which will be found on another page, shows the amount expended under each Vote.

110. The total amount voted for the year was $6,749,275.22, but owing to certain contractors for clothing, stores, &c., not completing their orders by March 31, 1909, amounts totalling $264,533.81 lapsed. A statement in detail follows, showing the Votes, the expenditure, and the amounts that lapsed for each service.

111. The expenditure under certain Votes, such as Salaries and Wages, Maintenance of Military Properties, Transport and Freight, Grants to Associations, Contingencies, Clothing, Stores, &c., was simply to meet the ordinary requirements of

these services, and includes nothing special. The Dominion Arsenal spent $275,936, or $140,747 less than the previous year of sums voted by Parliament, but in addition the sum of $58,658.56 realized in 1908-9 by the sale of scrap iron, which had been accumulating for the past few years, was turned over to the credit of the Arsenal, and used for the purchase of raw material, making the total expenditure for 1908-9 $334,595. Financial statements from the Superintendent will be found on another page. (See Appendix D.)

112. The expenditure of the Royal Military College was $16,350 in excess of previous year. As, however, some $5,000 of sundry supplies furnished the College in 1907-8 were paid in 1908-9, the real increase was $6,350 only. This may be accounted for by (*a*) larger number of cadets attending, (*b*) special expenditure in connection with water and milk supply, (*c*) additions to the staff and advances in salaries.

113. Respecting the three large Votes, namely, Annual Drill, Pay and Allowances, and Capital, the following is submitted:—

ANNUAL TRAINING.

114. The ordinary expenditure on account of Annual Training for the year ended March 31, 1909, which is shown in the following tables, amounted to $1,054,416.74, and the special expenditure in connection with the Tercentenary celebration at Quebec in July, 1908, amounted to $250,379.18, bringing the total expenditure under this vote to $1,304,795.92. This is the largest amount expended in any year for Annual Training, the number of officers and men of the Active Militia who have received not less than 12 days training showing a corresponding increase over any previous year. The details given in the tables which follow show the steady increase which has taken place in the numbers of men and horses trained.

115. The Tercentenary celebration not only accounts for the direct increase of $250,379.18, but in addition the cavalry units which usually perform their training in the Eastern Townships were sent to Quebec and carried out their 12 days training at Savard Park in order that they might take part in the celebration. This caused an additional expense of $30,000 for this camp which is not included in the direct charges under the Tercentenary account.

116. Transport charges include a sum of $30,778 which was incurred in the fiscal year ended March 31, 1908, but which could not be paid for out of the appropriations for that year, but this is offset by a deficit of about the same amount for railway claims outstanding on March 31, 1909. Difficulties have been experienced for years past in getting transportation companies to submit their claims before the close of the fiscal year, resulting in these claims being carried over for payment in the ensuing year. Steps have, however, been taken which will, it is hoped, put an end to this undesirable practice.

ANNUAL TRAINING, 1908–1909.

Commands and Districts.	Numbers Trained.		Pay and Allowances of Various Staffs.	Pay and Allowances of Permanent Force and Instructors.	Pay and Allowances of Active Militia.	Rations, Forage and Miscellaneous Services.	Mobilized Wheeled Transport.	Totals.	——
	All Ranks.	Horses.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
Western Ontario—									
City Corps	4,910	53			62,570 60			62,570 60	
Rural "	9,142	1 716	4,796 63	1,921 45	140,157 63	33,369 90	2,258 00	182,476 61	
Eastern Ontario—									
City Corps	2,408	88			32,444 20	75 00		32,519 20	
Rural "	4,816	1,164	5,250 86	970 04	78,426 29	17,133 57	702 00	102,482 76	
Quebec—									
City Corps	4,342	232	58 00		58,400 10	48 00		58,506 10	
Rural "	6,903	1,806	6,604 95	1,223 80	135,780 85	18,619 43		162,229 03	
Maritime Provinces—									
City Corps	2,219	21			28,740 75			28,740 75	
Rural "	6,839	1,254	5,647 32	1,877 40	110,256 70	24,165 80	347 00	142,294 22	
Military District No. 10—									
City Corps	723	1			8,272 65			8,272 65	
Rural "	1,587	1,069	1,947 30	357 35	35,663 08	5,790 28		43,758 01	
Military District No. 11—									
City Corps	894	5		63 00	13,693 35	135 05		13,891 40	
Military District No. 13—									
Rural Corps	740	625	1,031 40	251 05	17,437 61	4,105 46		22,825 52	
Petawawa—									
Artillery Camp			3,773 00	4,465 16	9,047 65	11,896 78		29,182 59	In addition transport $33,-373.43 is included under general transport.
Halifax—									
McNab's Island Perm'nt Force				4,013 20		146 77		4,159 97	In addition transport $890.-32 is included under general transport.
Total No. trained, &c.	45,523	8,034	29,082 46	15,142 45	730,891 46	115,486 04	3,307 00	893,909 41	
General expenditure, transport and freight								159,833 92	
Miscellaneous								673 41	
Total ordinary expenditure, annual training									$1,054,416.74.

Special Expenditure, Quebec Tercentenary—									
Pay and allowances								31,146 55	
Transport and freight								159,159 55	
Supplies, &c								60,073 08	
Total (Tercentenary)									$ 250,379 18.
Grand total									$1,304,795 92.

117. The following shows the numbers trained in camps and cost for pay and allowances, not including supplies or transport, &c., 1908-9:—

District Camps, &c.	All Ranks.	Horses.	Pay and Allowances, excluding Supplies, &c.
			$ cts.
Goderich	2,766	137	39,307 30
Niagara	6,120	1,442	101,121 36
Guelph	256	137	6,420 05
Barriefield	3,110	812	53,305 75
Rockliffe (artillery)	290	149	7,715 42
Rockliffe (district)	1,416	203	23,626 02
Levis	2,889	84	42,625 51
Three Rivers	1,844	71	27,461 95
Savard Park	2,170	1,651	73,522 14
Sussex	2,592	554	44,288 45
Charlottetown	748	107	13,919 36
Aldershot (artillery)	510	223	9,619 95
Aldershot (district)	2,989	370	49,953 66
Winnipeg	573	321	14,625 49
Brandon	871	623	20,183 39
Saskatoon	143	125	3,158 85
Calgary	740	625	18,720 06
Total at camps	30,027	7,634	549,574 71
City Corps at Local Headquarters	15,496	400	204,242 65
McNab's Island, Permanent Force			4,013 20
Petawawa Artillery Camp			17,285 81
Total numbers trained, and pay	45,523	8,034	775,116 37

118. The following statement shows the numbers trained and the expenditure for each year since 1904-5. It will be observed that the total number trained in 1908-9 was 34 per cent more than in 1904-5.

—	Officers.	N. C. O's.	Men.	Total All Ranks.	Horses.	Total Cost.
						$
1904-5	2,610	7,789	23,475	33,874	5,032	699,724
1905-6	2,919	8,013	28,168	39,100	6,775	809,924
1906-7 (9 months)	2,423	6,584	23,877	32,884	4,621	724,378
1907-8	3,365	9,615	31,141	44,121	7,732	1,084,499
1908-9	3,300	9,463	32,760	45,523	8,034	*1,054,416

* Excluding Tercentenary celebration.

119. The following table shows the numbers that received Efficiency Pay each year since 1904-5, and the amount paid.

—	Recruits.	Men with one previous training.	Men with two or more previous trainings.	Amount of Efficiency Pay drawn.
				$
1904-5	12,413	5,413	9,486	113,432
1905-6	13,540	6,920	14,725	155,428
1906-7 (9 months)	9,032	5,542	13,171	129,665
1907-8	13,104	6,473	17,451	167,929
1908-9	13,567	7,131	19,100	183,942

120. The above shows that men are staying longer in the Militia, the number of recruits each year being practically the same, while the increase has taken place in the number of men who have carried out two or more trainings. The increase in this respect in 1908-9 was over 100 per cent more than 1904-5.

PAY VOTE.

121. A statement of the Pay Vote, showing the amounts spent on the various Commands and Districts under each sub-head, follows:

Pay 'A.'—Pay of the Staff at Headquarters and in the Commands and Districts, shows a slight decrease of $3,478 on the previous year's expenditure.

Pay 'B.'—Pay and Allowances of the Permanent Force and also of officers of the Active Militia attached for 'long' courses, show a decrease of $15,107 on the previous year's expenditure, due to the Force having been slightly reduced during the last year.

Pay for Halifax Garrison amounted to $522,604, and for Esquimalt $68,116.

Pay 'C.'—Is solely for Active Militia (Non-Permanent). It represents the pay and allowances of Active Militia officers and men at the Royal Schools of Instruction, School of Musketry, Signalling Schools and certain special Provisional Schools. Most of the latter schools take place in cities where the officers and men reside, in which case no pay and allowances are authorized. Owing to the lack of funds towards the latter part of 1908 it was found necessary to cancel the customary courses of instruction, consequently the expenditure under this head is less than usual.

Pay 'D' is payable only to Active Militia (Non-Permanent), on account of allowances for Command Pay, Drill Instruction, Care of Arms and Postage. The amount $115,005 is larger than usual, owing to many claims for the year 1907-8 not having been paid during that year, the arrears being paid in 1908-9. For some years these allowances have not been settled before the end of the fiscal year to which they belong, due generally to delay in Commands and Districts in accounting for deficiencies of equipment and stores, which must be settled before payment can be made. Special efforts were made during the past year to get all the deficiencies accounted for and all claims settled for the period ended March 31, 1909, with the result that practically all arrears have been paid. In future, with more attention to prompt completion of inspections in the Commands and Districts, there ought to be no necessity to carry over any liability for allowances to a succeeding fiscal year. The establishment of the Stores Audit Office in the Account Branch has resulted in much more efficient control over the accounting for stores, clothing and equipment issued to the Active Militia.

Pay 'E,' for special Guards of Honour and Escorts furnished by the Active Militia, is the same as usual.

122. Statement of expenditure of the Pay Vote for 1908-09:—

Commands and Districts.	Pay 'A'	Pay 'B'	Pay 'C'	Pay 'D'	Pay 'E'	Total.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Western Ontario	16,094 21	195,165 74	4,528 05	40,145 10	776 40	256,709 50
Eastern Ontario	17,148 31	174,341 17	2,639 16	19,329 38	1,175 40	214,633 42
Quebec	17,223 78	249,012 26	10,032 06	28,793 33	652 80	305,714 23
Maritime Provinces	16,789 91	570,763 08	2,414 24	18,913 80	955 10	609,836 13
Military District No. 10	1,637 76	45,160 60	3,616 51	4,584 03	256 55	55,255 45
Military District No. 11	3,000 00	68,115 93	27 00	1,975 50	126 05	73,244 48
Military District No. 13	2,965 50	3,833 62	4,756 90	1,262 12	108 05	12,926 19
Headquarters, Ottawa	57,732 40	79,771 94	4,169 40	.....	3 00	141,676 74
Total expenditure of Votes	132,591 87	1,386,164 34	32,183 32	115,003 26	4,053 35	1,669,996 14
By Statute	.....	.....	.....	.....	.....	21,600 00
Grand total	.....	.....	.....	.....	.....	1,691,596 14

123. Statement of Pay and Allowances to Active Militia attending Schools of Instruction—Pay 'C,' 1908-09:—

School.	No. Attending.			Amount.	—
	Officers.	N. C. O.'s and Men.	School Teachers.		
				$ cts.	
Cavalry, St. Jean, P.Q	29	7	.....	981 00	
" Toronto	26	5	.....	765 40	
Artillery, Kingston	19	50	.....	2,208 66	
" Quebec	.....	1	.....	7 50	
" Halifax	1	2	.....	141 73	
Infantry, London	25	26	11	1,461 45	
" Toronto	57	27	11	2,258 70	
" Fredericton	14	8	.....	575 48	
" Halifax	4	5	14	1,514 70	
" Quebec	48	23	.....	8,593 81	
" Winnipeg	27	27	.....	1,538 51	
Medical, Toronto	.....	5	.....	42 50	
" Halifax	1	8	.....	125 90	
Army Service Corps, Halifax	1	...	.....	56 43	
Musketry, Rockliffe	11	5	..	4,169 40	Permanent Force not included in numbers.
Signalling, Kingston	.....	.....	...	205 00	Details as to numbers omitted.
" Brockville	.. ..	.....	.....	225 50	
" Montreal	.. .	.....	.....	113 75	
" Quebec	.....	.....	.....	336 00	
Provisional Schools—Lloydminster	.....	.....	.....	978 30	
Morden	.....	.....	.....	354 00	
Saskatoon	.....	.....	.....	600 10	
Miami	.....	.....	.....	145 60	
Calgary	.....	.....	.....	4,333 20	
Edmonton	.....	.....	.....	423 70	
Victoria	.....	.....	.....	27 00	
Total	263	199	36	32,183 32	

124. The numbers above include only Active Militia officers and men attending Permanent Schools of Instruction for short courses, and do not include officer attached for long courses, these latter being paid out of the Permanent Force Vote, Pay "B". Numbers attending Signalling and Provisional Schools are also omitted.

CAPITAL ACCOUNT.

125. The expenditure charged to Capital was $1,245,346.54, as follows:—

Ross Rifles—	
Final payments on 14,181 rifles received	$ 89,220 00
Progress payments on new order	179,684 93
3,031 bayonets and scabbards received	16,790 87
Progress payments on others	3,931 25
Rent of premises	1,160 80
1 rifle to order	25 00
1 sleeve gauge for testing	9 00
	$290,821 85
Sutherland Rifle Sights, 6,000	$ 7,200 00
Inspection of rifles, bayonets and sights	$ 19,455 86
Ordnance, Ammunition and Warlike Stores—	
Field guns and ammunition purchased in England	$342,299 88
Limbers, wagons, &c., made in Canada	230,073 91
Sub-target guns	15,000 00
Warlike stores	26,280 05
Total	$613,653 84
Reserve clothing	$ 77,201 32
Saddlery, &c.—	
For 1,794 sets of saddlery, 2,370 numnahs, 540 saddle bags, 1,500 bits, 1,000 stirrup irons, and sundry articles, including inspection	$110,984 26
Lands Purchased other than for Rifle Ranges—	
Petawawa Camp	$ 23,949 85
Aldershot Camp	5,913 38
Paisley Armoury	517 62
Fraserville Armoury	600 00
Niagara Camp	10 00
Summerside Armoury	2,555 25
Total	$ 33,546 10

Rifle Ranges—

	Lands.	Construction.
	$ cts.	$ cts.
Amherst, N.S.		4,020 36
Agnes, Que		104 50
Belleville, Ont		23 25
Brockville, Ont	2,064 25	6,914 61
Calgary, Alta		68 40
Charlottetown, P.E.I	3,022 28	
Fort William, Ont		5,979 14
Fort Saskatchewan, Alta	30 00	
Fredericton, N.B		1,136 25
Goderich, Ont	700 00	27 85
Kingston, Ont	56 75	12,684 63
Kentville, N.S	121 85	
Lindsay, Ont		475 75
Lunenburg, N.S		2,930 00
Merrickville, Ont		517 29
Nelson, B.C	828 00	
Niagara-on-the-Lake, Ont	37 90	6,845 76
New Westminster, B.C	375 00	2,721 40
Petawawa, Ont		1,400 00
Pointe-aux-Trembles, Que	4,662 07	
Prescott, Ont		3,152 40
Rockliffe, Ont		6,498 15
Sydney, N.S		348 00
Truro, N.S	7,521 75	103 34
Virden, Man	5,132 48	6,115 96
Westville, N.S		5,863 94
Total	24,552 33	67,930 98

SESSIONAL PAPER No. 35

FINANCIAL STATEMENT FOR YEAR ENDING MARCH 31, 1909.

Expenditure 1908-09.	Expended.
	$ cts.
By Statute—	
Pay of Chief of General Staff, Inspector-General, Adjutant-General, Quartermaster-General, and Master-General of the Ordnance	21,600 00
By Vote—	
Pay of Staff, Permanent Force, and Active Militia, including allowances	1,669,996 14
Military Survey	28,414 45
Annual drill	1,304,795 92
Salaries and wages of civil employees	95,703 22
Maintenance, military properties	75,000 05
Engineer services	316,819 39
Warlike and other stores	231,997 88
Clothing and necessaries	371,865 64
Provisions, supplies and remounts	401,686 92
Transport and freight	112,312 93
Grants in aid of artillery and rifle associations, bands, &c	51,085 10
Miscellaneous and unforeseen contingencies	30,955 74
Printing and stationery	43,703 99
Royal Military College of Canada	108,495 79
Dominion Arsenal	275,936 51
Departmental Library	1,050 15
Customs dues	95,176 82
Gratuity to widow of Surg. Capt. C. D. Murray	1,000 00
" Caretaker S. Hughes (retired)	958 12
" " J. Donovan "	555 10
Towards expenses of Cadet Corps competition for Lord Roberts' Trophy	350 00
Capital account—Ordnance, arms, ammunition, rifle ranges, lands, reserve of clothing, equipment, &c	1,245,346 54
Total	6,484,806 40
PENSIONS.	
By Vote—	
Pensions, Militia—Rebellion, 1885, and general	12,732 76
" " Fenian Raid, &c	1,508 56
By Statute—	
Pensions, Militia—Upper Canada Rebellion of 1837-38	120 60
" " Act, 1901	26,873 04
Total	6,526,040 76

Revenue, 1908-09.	$ cts.	$ cts.
Casual		120 57
Ammunition and stores	13,314 31	
Rents	4,358 01	
Miscellaneous	10,115 68	
		27,788 00
Royal Military College		28,019 18
Pensions Act, 1901		21,131 98
Total		77,068 73

STATEMENT of Expenditure for the ten years 1899-1900 to 1908-09.

Head of Service.	1899-00.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	(9 mos.) 1906-07.	1907-08.	1908-09.
PAY AND ALLOWANCE.	$	$	$	$	$	$	$	$	$	$
By Statute—										
Pay of Chief of General Staff, Inspector-General, Adjutant-General, Quartermaster-General, and Master-General of the Ordnance	10,646	11,646	12,400	12,400	10,930	14,699	21,600	16,200	21,600	21,600
By Vote—										
Headquarters staff	13,672	11,140	17,203	22,861	39,037	46,519	48,991	33,782	58,797	57,732
Command and district staffs	22,619	25,919	25,204	29,918	35,669	45,551	73,119	64,234	77,272	74,860
Permanent Force	180,458	221,067	233,243	266,155	353,729	477,571	†1,055,099	845,504	1,401,271	1,386,164
Active Militia, attached	16,315	22,528	24,905	17,071	28,159	42,552	42,593	27,913	40,127	32,183
" " allowances	96,962	70,712	52,920	51,774	82,411	56,760	122,864	44,235	70,239	115,003
" " salutes, guards, &c	2,000	2,603	4,079	3,204	2,584	8,910	5,829	4,543	6,025	4,054
Total pay and allowances	342,672	365,615	369,954	403,383	552,519	692,562	1,370,095	1,036,411	1,675,331	1,691,596
Annual drill	424,991	454,357	314,761	385,190	590,670	699,724	809,924	724,378	1,084,499	1,304,796
Salaries and wages	70,000	86,495	93,956	94,994	64,682	64,984	72,003	67,063	98,979	95,703
Engineer services and lands	144,444	263,628	227,672	146,173	162,783	205,800	254,427	275,587	325,913	316,819
Maintenance, militia properties	39,930	39,203	47,760	49,201	50,511	49,854	50,523	38,434	70,062	75,000
Warlike and other stores	58,087	85,171	99,079	89,319	62,194	74,707	174,980	124,912	*554,200	231,998
Clothing and necessaries	185,078	209,657	224,805	142,364	97,121	179,943	429,727	274,510	399,919	371,866
Provisions, supplies and remounts	117,934	121,790	129,694	129,896	158,378	165,190	463,668	274,941	424,987	401,687
Transport and freight	39,863	39,824	39,308	39,091	54,855	54,783	84,856	54,965	109,980	112,313
Grants to artillery and rifle associations, and bands	36,942	36,035	39,950	37,987	40,499	49,100	45,825	45,241	49,278	51,085
Miscellaneous and unforeseen contingencies	2,843	5,247	5,397	8,370	8,825	10,440	14,191	13,694	18,782	30,956
Printing and stationery	13,706	11,264	13,558	11,741	18,505	24,541	25,805	26,306	50,430	43,704
Royal Military College	69,230	72,520	81,912	75,006	90,387	86,477	86,243	68,898	92,145	108,496
Dominion Arsenal	102,952	110,783	207,614	149,998	149,912	150,563	215,037	224,401	341,083	275,936
Military survey	3,433	3,369	4,021	3,779	7,167	11,246	15,518	17,760	23,716	28,414
Customs dues								71,803	143,622	95,177
Departmental library					364	848	972	680	968	1,050
Gratuities, sundry	2,375	5,411	313	317	934	5,178	582	5,700	26,879	2,513
Aid to civil power, sundry		2,621	4,480	18,850	7,352	5,965	492	2,020	410	
Defences, Esquimalt	12,989	128,140	119,058	111,943	109,987	109,987	179,256			
Special service, South Africa	1,429,359	558,811								
Halifax provisional garrison	118,265	349,871	254,962	131,256						
Coronation contingent			29,973	62,630						
Yukon field force	173,266	14,321			24,386					
Miscellaneous small votes	5,443	6,822	8,820	2,778		9,250			7,000	350

Charged to Capital.										
Ordnance, ammunition, tents, wagons, accoutrements, artillery and warlike stores (excepting clothing, saddlery and harness)	50,166	131,551	143,995	213,350	513,078	396,772	398,020	428,339	703,750	612,997
Saddlery and harness	46,847	.....	80,741	73,151	172,534	212,688	54,418	44,404	92,570	110,984
Clothing	1,796	.....	.....	.....	235,214	284,478	271,733	22,813	57,098	77,858
Ross rifles, including inspection	.....	.....	.....	62,972	163,916	240,301	367,306	300,388	214,143	317,478
Dominion Arsenal, for ammunition	.....	.....	.....	11,692	75,000	75,000	75,000	56,796	75,000	.....
Lands for military purposes, and construction of new rifle ranges	132,042	4,334	74,961	67,058	140,168	90,725	133,399	122,549	155,344	126,030
Total	230,851	135,885	299,697	428,223	1,299,910	1,299,964	1,299,876	975,283	1,297,905	1,245,347
Total Militia expenditure	3,624,653	3,106,240	2,616,744	2,522,489	3,551,941	3,951,106	5,594,000	4,322,987	6,796,088	6,484,806
Less refunds on account special services South Africa	.....	.....	7,220	787	6,818	822	267	.....	.....	.....
Totals	3,624,653	3,106,240	2,609,524	2,521,702	3,545,123	3,950,284	5,593,733	4,322,987	6,796,088	6,484,806
Pensions.										
1837-38	840	800	600	360	320	280	160	160	160	120
Fenian Raid	2,339	2,339	2,261	2,268	2,373	2,337	955	1,851	1,935	1,508
Northwest Rebellion	18,571	18,103	18,317	18,188	17,916	16,420	16,202	16,073	16,283	12,733
Pensions Act, 1901	.....	.....	.....	.....	8,304	7,101	9,423	9,664	19,981	26,873
Totals	21,750	21,242	21,178	20,816	28,913	26,138	26,740	27,748	38,359	41,234
Civil Government Expenditure.										
Salaries	50,764	51,910	51,647	53,078	48,575	52,512	58,433	45,668	63,104	101,039
Contingencies	8,877	10,567	7,867	12,696	10,017	9,946	12,026	8,654	11,994	13,884
Totals	59,641	62,477	59,514	65,774	58,592	62,458	70,459	54,322	75,098	114,923
Revenue Received.										
Militia	26,291	25,658	18,513	17,836	19,894	20,695	32,191	16,618	39,809	27,788
Casual	2,120	37,777	1,821	483	595	19,988	24,641	691	1,175	130
Royal Military College	21,464	22,036	23,230	23,956	23,323	25,472	23,067	24,368	23,209	28,019
Pension Act 1961	.....	.....	.....	.....	.....	.....	.....	12,573	19,596	21,132
Totals	49,875	85,471	43,564	42,275	43,812	66,155	79,899	54,250	83,789	77,069

†Including $200,000 for pay of Imperial troops.

*Including $260,000 for stores transferred from Imperial Government.

Statement of amounts voted, transferred, expended and lapsed 1908–09.

Name of Appropriation.	Amount available for expenditure.					Expenditure.		
	Session of 1907–08.		Voted during Session 1908-09 as per further Suppl. Estimates being offset by savings from other appropriations aggregating $300,000.	Amounts saved to offset further Suppl. Estimates, 1908-09.	Net amount available for expenditure, 1908-09.	Expended 1908-09.	Amounts lapsed.	Amounts over expended.
	Voted as per Main Estimates.	Voted as per Suppl. Estimates.						
	$	$ cts.	$	$	$ cts.	$ cts.	$ cts.	$ cts.
Pay (Statute):—								
Pay of Chief of the General Staff, Inspector General, Adjutant-General, Quartermaster-General, Master-General of the Ordnance	21,600				21,600 00	21,600 00		
Pay (Vote):—								
Pay and Allowances	1,500,000		170,000		1,670,000 00	1,669,996 14	3 86	
Topographic Survey	30,000				30,000 00	28,414 45	1,585 56	
Annual Drill	1,000,000	200,000 00	105,000		1,305,000 00	1,304,795 92	204 08	
Salaries and wages	100,000				100,000 00	95,703 22	4,296 78	
Military Properties—Maintenance	65,000	10,000 00			75,000 00	75,000 05		0 05
" " —Construction and repairs	345,000	*21,812 00		90,000	276,812 00	276,826 79		14 79
" " —Quebec cliff and walls	40,000				40,000 00	39,992 60	7 40	
" Stores	350,000			65,000	285,000 00	231,997 88	53,002 12	
" Clothing and necessaries	450,000				450,000 00	371,865 64	78,134 36	
Provisions and Supplies	430,000				430,000 00	401,686 92	28,313 08	
Transport and Freight	100,000		12,500		112,500 00	112,312 93	187 07	
Grants to associations	55,000				55,000 00	51,085 10	3,914 90	
Contingencies	25,000	6,000 00			31,000 00	30,955 74	44 26	
Printing and stationery	45,000				45,000 00	43,703 99	1,296 01	
Royal Military College	95,000	1,000 00	12,500		108,500 00	108,495 79	4 21	
Dominion Arsenal	350,000			60,000	290,000 00	275,936 51	14,063 49	
Departmental Library	1,000				1,000 00	1,050 15		50 15
Customs Dues	200,000			85,000	115,000 00	95,176 82	19,823 18	
Capital Account	1,300,000				1,300,000 00	1,245,346 54	54,653 46	
Monument—Stony Creek		5,000 00			5,000 00		5,000 00	
Gratuities		2,513 22			2,513 22	2,513 22		
Cadet Corps Competition		350 00			350 00	350 00		
Totals	6,502,600	246,675 22	300,000	300,000	6,749,275 22	6,484,806 40	264,533 81	64 99

* Revote of $6,000 included.

APPENDICES.

126. Appended are the following:—

Report of the Director-General of Medical Services for the year 1908-9. Appendix 'A.'

Report of the Commandant, Royal Military College, 1909. Appendix 'B.'

Report of the Board of Visitors, Royal Military College, 1909. Appendix 'C.'

Report of the Superintendent of the Dominion Arsenal, 1908-9. Appendix 'D.'

Interim Report of the Militia Council on the Annual Training for the season of 1908, including the Report of the Inspector-General for the calendar year 1908, and the Report of the Officer Commanding the Militia, Quebec Tercentenary Celebration. Appendix 'E.'

E. F. JARVIS,
Secretary, Militia Council.

APPENDIX A.

OTTAWA, July 27, 1909.

From the Director-General of Medical Services.
To the Adjutant-General, Canadian Militia.

SIR,—I have the honour to report upon the Medical Services for the year ending March 31, 1909.

ADMINISTRATION

1. The system of Medical Administration has been placed upon a better basis, resulting in much decentralization. The Permanent Medical Officers of Commands are now administering the Medical Services within their Commands, except Quebec, where there is much organizing to be done.

MEDICAL STORES.

2. The establishment of Medical Stores has been continued. The Command and District Stores at Halifax, Quebec, Kingston, Toronto and Esquimalt are now in a position to deal with any emergency arising within their territory.

SANITATION.

3. The scheme adopted in September, 1907, at Aldershot, N.S., has been tried at all camps. Camp sanitation has become a matter of much interest to all ranks and to all branches of the service. The appointment on the staff of all the larger camps of a Sanitary Officer has resulted in this phase of camp work being carried out and elaborated in a manner most creditable to all concerned.

4. The educative value of these sanitary measures to the Militia and through the Militia to the general public must be of value. It is demonstrated that it is possible to keep a camp clean, healthy and pleasant, and if a camp, why not a home?

5. The sanitary problem of the Quebec Tercentenary was a difficult one owing to the limited area occupied by the troops and the short time at their disposal for conservancy work. No outbreak of disease could be attributed to the unsanitary condition of the camp. The cases of enteric that did occur were chiefly amongst the permanent troops at De Salaberry Park, and arose from the men drinking from an old well in the vicinity of the camp, on the days when the city water was cut off. At Savard Park some cases arose also from the men drinking the polluted water of the St. Charles river.

PERMANENT ARMY MEDICAL CORPS.

6. The Permanent Army Medical Corps has now various functions to perform: not only to look after the sick of the Permanent Force, but also to act in an instructional capacity to the Active Militia; to care for and issue medical stores; to assume the direction of all methods of sanitation in garrisons or in camps; and the officers have to be ready to take up the important administrative posts when required. The personnel at present is much too small for all this work.

ARMY MEDICAL CORPS.

7. At present the employment of the Army Medical Corps is practically limited to the Field Ambulances, which now number eighteen; four more will be sufficient to supply a field force, but there the organization ends. I would recommend that personnel be provided, in nucleus, for other medical units such as Clearing Hospitals, General Hospitals, and, of especial importance in this country of long distances, hospital trains.

8. The work of the Field Ambulances during the year was good, but too little use is made of these units at Camps as regards their own actual field training and the training of officers of other branches in handling these units in the field. The old idea that a field ambulance is a field hospital seems to be firmly implanted in the minds of all camp commandants.

REGIMENTAL MEDICAL SERVICE.

9. For the future all new appointments will be made to the Army Medical Corps, and officers so appointed will be detailed to regiments for a short term. This will tend to better organization and great saving of good material.

MILITARY BUILDINGS.

10. I can only repeat my former remarks on the present buildings at nearly all the garrisons, their condition cannot reflect with credit upon the Department.

11. Much has been done to improve the hospitals. Halifax is now a very completely equipped and up-to-date hospital and compares very favourably with any civil hospital. Two houses were rented at Kingston for hospital purposes and have proved most satisfactory. At Quebec the old original Garrison Hospital is being remodelled after having been used for other purposes for many years, and will make an excellent institution. The hospital at London is quite adequate. The so-called hospital at Toronto is only fit for a detention room; so, also, I believe is the one at Winnipeg, though I have never seen it, not having been west of Ontario.

HEALTH OF THE PERMANENT FORCE.

12. The health of the Force has been most excellent as shown by the accompanying report:—

STATISTICAL REPORT.

RETURN of Diseases treated in Military Hospitals for Year ending March 31, 1909.

Diseases.	Nomenclature Nos.	STATION HOSPITALS.										
		R. M. College.	London.	Toronto.	Kingston.	St. John.	Quebec.	Fredericton.	Winnipeg.	Halifax.	Victoria.	Total.
Abrasion	1076	....	3	1	....	4	....	....	3	9	2	22
"	1084	....	....	....	....	....	3	....	....	....	....	3
Abscess of brain (cortex)	100	....	....	....	....	....	....	....	....	....	1	1
" connective tissue	953	....	....	8	3	....	6	1	1	4	....	23
" dental	450	1	1	....	....	....	....	....	....	....	....	2
" eyelid	242	....	....	....	....	2	....	....	....	....	....	2
Acne	1006	....	....	....	....	....	....	....	....	2	....	2
Alcoholism	50	....	....	2	6	2	6	1	....	21	2	40
" delirium tremens	50	....	....	....	....	....	....	....	....	....	1	1
Ametropia	222	....	....	....	....	....	....	....	....	1	....	1
Anæmia	61	....	....	....	....	....	....	....	....	7	....	7
Appendicitis	515.?	2	....	2	....	....	....	....	....	3	....	7
"	515a	2	....	....	....	....	....	1	....	....	....	3
"	515c	....	....	....	....	....	....	....	1	....	....	1
Apoplexy	109	....	....	....	....	....	....	....	....	1	....	1
Arterial sclerosis	308	....	....	....	....	....	....	....	....	4	....	4
Asthma	338	1	....	....	....	....	....	....	....	....	2	3
Boils	695	10	1	....	2	12	3	2	13	11	3	57
Bright's disease	652	....	....	....	1	....	....	....	....	....	....	1
"	652.1	....	....	....	....	....	....	....	1	....	....	1
Bronchitis	404	15	1	1	9	17	11	10	....	1	....	65
Brush-burn	P. 279	....	....	....	....	....	....	1	....	....	....	1
Burns, arm	1098	....	....	....	....	....	....	1	....	2	....	3
" hand	1086	....	....	....	1	....	....	....	....	....	....	1
" back	1086	....	....	....	1	....	....	....	....	....	....	1
Bursal cyst	946	....	....	....	....	1	....	....	....	....	....	1
Carbuncle	966	....	....	....	....	1	1	....	....	....	....	2
Cestoda taenia solium	App. 43	....	....	....	....	1	....	....	....	1	....	2
Chicken-pox	6	....	....	....	....	....	1	....	....	2	....	3
Colic	544	1	....	....	2	1	4	....	....	6	....	14
" biliary	582	....	....	....	....	1	....	....	....	....	....	1
Concussion of brain	1096	2	....	1	....	....	....	....	....	....	....	3
Condyloma	731	....	....	....	....	....	....	....	....	1	....	1
Congestion of liver	571	5	....	....	1	....	....	....	....	....	....	6
" lung	410	....	1	....	1	....	....	....	....	....	....	2
Conjunctivitis	166	1	....	1	5	2	2	2	1	3	....	17
Constipation	541	....	....	....	7	....	1	....	1	5	....	14
Corns	982	....	....	....	....	....	....	....	....	4	....	4
Contraction	933	....	....	....	....	....	....	....	....	1	....	1
Contusions, abdomen	1168	....	....	....	1	....	....	....	....	....	....	1
" back	1157	....	....	....	....	1	....	....	....	....	....	1
" chest-walls	1142	....	....	....	....	1	....	....	....	2	....	3
" eye	1116	....	....	3	....	....	....	....	....	....	....	3
" eyelid	1110	....	....	....	....	1	....	....	....	....	3	4
" face	1102	....	....	....	1	2	....	....	1	6	....	10
" lower extremities	1219	....	....	....	5	2	....	....	1	7	....	15
" nervous system	1034	....	....	8	....	1	....	....	....	....	....	9
" muscles	1065	8	....	....	....	1	....	....	....	....	....	9
" mucous membrane	1083	....	....	....	....	....	8	....	....	....	....	8
" skin	1075	....	....	....	....	....	....	....	....	6	....	6
" shoulder	1195	....	....	....	....	1	....	....	....	10	....	11
" scalp	1088	....	....	....	....	2	....	....	....	....	....	2
Convulsions	123	....	....	....	1	....	....	....	....	1	....	2
Cow-pox	8	....	....	....	....	....	....	....	....	8	....	8
Cyst	81	....	....	....	....	....	....	....	....	2	....	2
Deformity of toes	951b	....	....	....	....	1	....	....	....	....	....	1
"	951c	....	....	....	....	....	....	....	....	3	....	3
Degeneration	94	....	....	....	....	....	....	....	....	1	....	1
Dermatitis seborrhœica	1005	....	....	....	....	....	....	....	....	1	....	1
Diarrhœa	540	5	....	5	3	3	5	1	1	13	3	39

SESSIONAL PAPER No. 35

RETURN of Diseases treated in Military Hospitals—*Continued.*

Disease.	Nomenclature Nos.	STATION HOSPITALS.										
		R. M. College.	London.	Toronto.	Kingston.	St. Jean.	Quebec.	Fredericton.	Winnipeg.	Halifax.	Victoria.	Total.
Diphtheria	10									3		3
Dislocation of bone	908									1		1
" radius and ulner	1212					1						1
Disordered action of heart	305									9		9
Dysentery	11						3					3
Eczema	962	1				1	4		1	3	2	12
Endocarditis	292									1		1
Enteric fever	13	1		2	9	2	1	2		5		22
Epistaxis	280						1					1
Epilepsy	124									2	1	3
"	123a			1								1
"	124b					1						1
Enteritis	515a								1			1
Enteralgia	545									1		1
Erysipelas	15		1									1
Erythema	959a						1			1		2
Extraction of teeth	P. 321				1							1
Flat-foot	950									2		2
Fistula in ano	550			2		2						4
Foreign bodies in cornea	1117									1		1
Frost-bite	969						2					2
Fracture—												
Bones of forearm	1205									2		2
Ex. condyle of humerus	1204				1							1
Femur	1227									1		1
Fibula	1230							1				1
Inferior maxilla	1105	1			1							2
Meta-tarsal	1232								1			1
Nose	1232	1							1			2
Ribs	1145				1			1	1	2		5
Tibia and fibula	1231									1		1
Tibia	1229			1			8					9
Ganglion	941a									1		1
Gastralgia	510									2		2
Gonorrhœa	20		2	16	11	4	27	3	4	53	5	125
Gout	68									1		1
Hæmorrhage of brain	101									1		1
" lung	411									2		2
Hæmatemesis	492					2						2
Hernia	528			3			4					7
"	52A.b							2				2
Herpes	970						1					1
Headache	128	1		1			1					3
Hypertrophy of heart	297					1						1
Hyperæmia	102						1					1
Hydrocele	754									1		1
Impetigo contagiosa	963			1								1
Incontinence of urine	690						1					1
Indigestion	499	1	3		6	20	4			18	1	53
Influenza	21	19	1	7	12	21	9	13	12	69	6	169
Insomnia									1			1
Internal derangement of knee-joint	1221									2		2
Inflammation of :—												
Brain	97				1							1
Breast	864									1		1
Bladder	676			2						1		3
Bursa	943									1		1
Connective tissue	952									2		2
Eyelid	239									1		1
External ear	259a									2		2
"	259c										1	1
Gums	451									1		1

RETURN of Diseases treated in Military Hospitals—*Continued.*

Disease.	Nomenclature Nos.	TATION HOSPITALS.										
		R. M. College.	London.	Toronto.	Kingston.	St. Jean.	Quebec.	Fredericton.	Winnipeg.	Halifax.	Victoria.	Total.
Inflammation of—												
Gallducts	576a									1		1
Glands	632									1		1
Glans penis	730				1							1
Joints	903					5						5
Lympathic glands	605		2	1		1				3		7
Larynx	339					1			1			2
Lips	432									1		1
Knee-joint	903									1		1
Middle-ear	265							1		6		7
"	265a								1			1
"	265c								2			2
Muscles, thigh	925					1						1
Nose	277	1	2			1						4
Naso-pharynx	284						4					4
Nerves	86					1				1		2
Prostate	717									1		1
"	717a									1		1
Pharynx	483a							6				6
Stomach	489			2			29	3		10	7	51
Tonsils	475	26		5	15	6	6	1	11	31		101
Inflammation of Tonsils	475b			1	1							2
Injuries :—												
Effects of foreign bodies	84									1		1
" " heat	1025				1		3		1	9		14
" " cold	1026									1		1
" " irritants	1027			1								1
To Penis	1027			1								1
Iritis	180									1		1
Irritability of Bladder	688									2		2
Jaundice	575				1							1
Lumbago	931	1					2				3	6
Malaria	25								1	1		2
Mania	145									1		1
Mania	145								1			1
Measles	26								2	2		4
Melancholia	146b									1		1
Myalgia	931		1	5		2	6	5		17		36
Malingering										1		1
Nausea	504				1							1
Nephritis, acute	651				1	1	1					3
Neuralgia	131			2	4		4	3				13
Neuralgia, facial	131					3				6		9
Neurasthenia	143				3					1		4
Obstruction of Intestines	536						1			1		2
Orchitis	757, 1a		4	1	1		4			5		15
Onychia	1023					2				4		6
Osteitis	885			1								1
Paralysis	110			1								1
Paralysis	110c									2		2
Pediculus Corporis	82								1			1
Pediculus pubis	82						2		3			5
Periostitis	885b							1				1
Pleurisy	425						4			2		6
Phlebitis	324						1					1
Phimosis	721b							1				1
Piles	556	1		2	1	1			1	9		15
Pneumonia	32	1						1	2	3		7
Psoriasis	974									7		7
Pyrexia	34									1		1
Ptomaine poisoning	App. 16								4			4
Retention of Urine	681				1						1	2
Renal Colic	668						1					1
Rheumatic Fever	37			8	6	2	9	7	9	14		55
Scald of hand	1025										1	1

SESSIONAL PAPER No. 35

RETURN of Diseases treated in Military Hospitals—*Continued.*

Disease.	Nomenclature, Nos.	STATION HOSPITALS.									
		R. M. College.	London.	Toronto.	Kingston.	St. Jean.	Quebec.	Fredericton.	Winnipeg.	Halifax.	Victoria.	Total.
Scarlet Fever	28	....	....	2	1	....	....	....	....	1	....	4
Scabies	82b	....	....	....	1	....	1	....	1	13	....	16
Sebaceous Cyst	1004	....	....	....	....	....	2	....	....	....	....	2
Shingles	971	....	....	1	....	....	....	....	1	1	1	4
Sore throat	473	....	5	....	....	3	1	....	....	1	....	10
Soft Chancre	736	....	....	8	1	1	2	1	....	14	....	27
Spasm	116	....	....	....	1	....	....	1	....	....	....	2
Sprain upper extremity	1196	....	....	....	2	3	....	....	....	5	....	10
" lower extremity	1220	4	....	....	7	6	13	2	4	45	8	89
" joints	1061	....	....	8	....	....	....	....	....	1	....	9
" back	1158	....	....	....	1	2	....	1	....	....	1	5
" muscles	1066	....	....	....	1	....	....	....	2	2	....	5
Stomatitis	436a	....	....	1	....	....	....	....	....	....	....	1
Stricture	712b	....	1	....	....	....	....	....	....	2	....	3
Syncope	304	....	....	....	....	....	....	1	....	1	....	2
Synovitis	903.1	10	1	1	10	....	4	2	....	1	3	35
Syphilis Primary	42a	....	....	....	....	....	....	....	....	6	....	6
Syphilis Secondary	42b	....	....	2	1	....	4	....	....	2	4	13
Tachycardia	305	....	....	....	....	....	....	2	....	....	....	2
Tetanus	43	....	....	....	....	....	1	....	....	....	....	1
Tinea Trichophytina	82	....	....	....	....	....	....	....	1	....	....	1
Tinea Trichophytina	82A.c.	....	....	....	....	....	....	....	....	....	1	1
Toothache	465	....	....	....	....	1	....	....	....	5	....	6
Tumour of neck, Lipoma	801	....	....	....	....	1	....	....	....	....	....	1
Tuberculosis	44	....	....	....	....	1	....	....	1	....	....	2
Ulceration of mouth	437	....	....	....	....	....	1	....	....	....	....	1
" " cornea	172	....	1	....	....	....	....	....	....	....	....	1
" " tooth	453	....	....	....	....	....	....	....	....	....	1	1
Ulcer Varix	329	....	....	....	....	....	....	....	....	....	1	1
Urethritis	707	....	....	....	1	....	2	....	....	1	....	4
Urticaria	960	....	....	....	....	....	1	....	....	3	....	4
Vegetable poisoning	....	....	....	....	1	....	....	....	....	....	....	1
Vaccination	p316	10	....	....	2	....	....	1	....	....	....	13
Varicocele	752	....	1	5	1	1	....	....	....	6	....	14
Valvular disease of heart	293	....	....	....	....	....	....	....	....	1	....	1
Venom sting of insects	p381	....	....	....	....	....	....	....	....	2	....	2
Vomiting	506	....	....	....	....	....	....	3	....	....	....	3
Whitlow	1024	....	....	....	....	....	....	1	....	....	....	1
Wounds :—	Sec. I											
Incised	(a)	4	....	2	....	....	....	....	....	....	....	6
Contused	(b)	....	....	2	7	....	....	....	....	....	....	9
Lacerated	(c)	2	....	....	....	....	....	....	....	....	....	2
Gunshot	f	....	....	1	....	....	....	....	....	....	....	1
Gunshot hand	1218a	....	....	....	....	....	....	....	....	1	....	1
Gunshot head	1101	....	....	....	....	....	....	....	....	2	....	2
Eyelid	1111	....	....	....	....	....	....	....	1	....	....	1
Face	1103	....	....	....	....	....	....	....	....	1	....	1
Hip	1103	....	....	....	....	....	....	....	1	....	....	1
Leg	1077	....	2	....	1	....	....	....	3	3	....	9
Lower extremities	1222	....	1	....	....	4	....	3	2	7	....	17
Lip	1222	....	....	....	....	1	....	....	....	....	....	1
Head	1088	....	....	....	....	....	9	....	....	....	....	9
Scalp	1089	....	....	....	....	....	....	....	....	1	....	1
Upper extremity	1197	....	....	....	....	....	....	3	2	13	....	18
N. A. D	....	....	....	....	....	....	....	....	....	2	....	2
N. Y. D	....	....	....	....	....	....	....	....	....	5	....	5
Remaining in hospital	....	....	....	8	8	4	16	5	2	32	4	79
Operations	....	....	....	10	1	7	....	2	1	19	....	40
Discharged by Medical Board	....	....	....	1	1	3	1	1	....	8	....	15
Discharged otherwise	....	....	....	4	....	....	....	....	....	....	....	4
Died out of Hospital	....	....	....	....	....	....	....	....	....	....	1	1
Died	....	....	....	....	....	....	2	....	....	3	2	7
Discharged to duty	....	138	35	135	170	163	229	92	103	634	59	1758
Admitted during the year	....	138	35	134	170	160	237	93	105	641	65	1784

RECAPITULATION.

Remaining in Hospital	79
Operations	40
Discharged by Medical Board	15
Discharged otherwise	4
Died out of Hospital	1
Died	7
Discharged to Duty	1,758
Admitted during the year	1,784

Memorandum—

Enteric Fever ..... 22 cases.

I have the honour to be, sir,

Your obedient servant,

G. C JONES, *Lieut.-Colonel*,

Director-General of Medical Services.

APPENDIX B.

KINGSTON, ONT., June 23, 1909.

From the Commandant, The Royal Military College,
To the Secretary, Militia Council, Ottawa.

SIR,—I have the honour to report as follows on the year ending June 30, 1909:—

STRENGTH.

1. The number of Gentlemen Cadets on the strength in September, 1908, was 101. Two have since withdrawn. Thirty-one cadets leave the College in the ordinary course this month. Forty-two have passed the Entrance Examination out of a total of 51 who competed.

CONDUCT AND DISCIPLINE.

2. The conduct and discipline of the cadets have been good.

EXAMINATIONS.

3. The results of the examinations have been, generally speaking, satisfactory.

DRILLS AND EXERCISES.

4. The standard has been, I consider, fully maintained.

CHANGES IN THE STAFF.

5. Major J. P. Shine, Royal Marine Light Infantry, has taken the place of Major N. A. W. Scott, Royal Marine Light Infantry, as Instructor in Infantry and Gymnastics.

Captain H. A. Kaulbach, 'The King's Own Regiment,' has taken the place of Major F. D. Lafferty, Royal Canadian Artillery, as Adjutant.

DIPLOMAS OF GRADUATION.

7. Diplomas of Graduation, with honours, have been awarded to the following:—

Company Sergeant-Major C. E. Read.
" " D. A. White.
Sergeant A. A. Anderson.
Corporal W. S. Lawrence.
" L. H. Watts.

Diplomas of Graduation to the following:—

Battalion Sergeant-Major A. E. Grasett.
Company " N. O. Reiffenstein.
" " S. D. Parker.
Sergeant T. D. J. Ringwood.
" G. M. Hutton.
" H. D. G. Crearer.
" J. A. L. Dansereau.
" H. A. S. Wurtele.
" J. C. Ball.
" L. C. Goodeve.

Corporal N. G. H. Burnham.
" F. A. Wanklyn.
" A. W. McKnight.
" H. A. Fraser.
" J D. P. Dunbar.
" S. A. Hargraft.
Cadet J. A. MacKenzie.
" R. C. Morgan.
" N. McL. Sutherland.
" K. W. Gunn.
" D. J. McDonald.
" W. H. Weller.
" E. M. Watts.
" E. H. Lancaster.
" J. A. A. Coté.

COMMISSIONS.

8. The following Gentlemen Cadets will be recommended for Commissions:—
Battalion Sergeant-Major A. E. Grasett, Royal Engineers.
Company " N. O. Reiffenstein, Royal Canadian Artillery.
Sergeant H. A. S. Wurtele, } Royal Field Artillery.
Corporal F. A. Wanklyn, }
Sergeant G. M. Hutton, Indian Army.
Corporal W. S. Lawrence, Royal Canadian Engineers.
" J. D. P. Dunbar, Royal Canadian Engineers.

ANNUAL PRIZES.

9. The College prizes have been awarded as follows:—
(*a*) The Sword of Honour for Conduct and Discipline, Battalion Sergeant-Major A. E. Grasett.
(*b*) Medals presented by His Excellency the Governor-General:—
Gold medal—Company Sergeant-Major C. E. Read.
Silver medal—Company Sergeant-Major D. A. White.
Bronze medal—Corporal L. H. Watts.
(*c*) Class prizes for the highest marks in each class:—
1st Class—Company Sergeant-Major C. E. Read.
2nd " Corporal E. O. Wheeler.
3rd " Cadet L. A. Wilmot.
(*d*) Subject for the highest marks in the several subjects:—
1st Class—Theoretical Military subjects, Company Sergeant-Major D. A. White.
1st " Military Engineering, Company Sergeant-Major C. E. Read.
1st " Tactics and Reconnaissance, Corporal F. A. Wanklyn.
1st " Drills, Exercises and Practical Work, Battalion Sergeant-Major A. E. Grasett.
1st " Surveying, Sergeant A. A. Anderson.
1st " Civil Engineering, Corporal L. H. Watts.
1st " Physics, Corporal L. H. Watts.
1st " Chemistry, Cadet R. C. Morgan.
2nd " Military Administration and Military Law, Corporal E. O. Wheeler.
2nd " Military Surveying and Topography, Corporal E. O. Wheeler.
2nd " Mathematics and Mechanics, Lance-Corporal A. B. McEwan.

2nd Class—Geometrical and Engineering Drawing, Corporal E. O. Wheeler.
2nd " French, Corporal E. O. Wheeler.
3rd " English, Cadet H. A. J. de Lotbinière.
3rd " French, Cadet J. A. Dansereau.

10. The Dundonald Mounted Patrol Competition was won by 'B' Company, 1st team.

11. The Challenge Shield, presented by the Hon. the Minister of Militia, for revolver practice, was won by Company Sergeant-Major D. A. White.

12. The Riding Challenge Cup, presented by Major G. R. Hooper, was won by Sergeant H. D. G. Crearer.

13. The Ontario Government Cups for the best shot in each class in the annual musketry course were won as follows:—

1st Class—Company Sergeant-Major D. A. White.
2nd " Corporal T. M. McAvity.
3rd " Cadet L. A. Wilmot.

14. The Quebec Government Cups, to the three cadets making the highest score at 200, 500 and 600 yards at the annual rifle meeting were won as follows:—

1st—Company Sergeant-Major D. A. White.
2nd—Sergeant L. C. Goodeve.
3rd " T. D. J. Ringwood.

15. The cups presented by Lieutenant-Colonel E. F. Wurtele, R.O., for the best gymnast in each class, were won as follows:—

1st Class—Cadet W. H. Weller.
2nd " Corporal C. B. Parr.
3rd " Cadet J. V. Young.

16. The Inter-Company gymnastic competition for the Challenge Cup, presented by Major N. A. W. Scott, Royal Marine Light Infantry, was won by 'A' Company.

I have the honour to be, sir,
Your obedient servant,

E. T. TAYLOR, *Colonel.*
Commandant, Royal Military College.

APPENDIX C.

REPORT OF THE BOARD OF VISITORS, ROYAL MILITARY COLLEGE, 1909.

OTTAWA, May 3, 1909.

The Secretary,
The Militia Council.

SIR,—I have the honour to forward, herewith, the report of the meeting of the Board of Visitors to the Royal Military College held in March last.

I have the honour to be, sir,
Your obedient servant,
W. D. OTTER, *Brigadier-General,*
Chairman Board of Visitors.

REPORT.

The Board assembled at the Royal Military College on March 24, 1909.

Present.

Chairman.—Brigadier-General W. D. Otter, C.V.O., C.B., Chief of the General Staff.

Members—Colonel E. Fiset, D.S.O., G.G.H.S., P.A.M.C., Deputy Minister of Militia and Defence.

Colonel T. Benson, Commanding Royal Canadian Artillery.

C. E. W. Dodwell, Esq., B.A., M.I.C.E., M. Can. Soc., C.E.

The Rev. C. P. Choquette, M.A.L.S., President of the College of St. Hyacinthe.

Secretary—Major C. F. Winter, Deputy Assistant Adjutant-General.

Colonel E. T. Taylor, the Commandant of the College, was, also, in attendance.

The Board made careful enquiry extending over three days, and their conclusions are as follows:—

THE COLLEGE COURSE.

AGE AT ADMISSION.

1. The better to accord with the educational system of the Province of Quebec, it is recommended that the age for admission to the College be from 16 to 21, instead of from 16 to 20 as heretofore.

SYLLABUS.

2. In the syllabus for the entrance examination no change is proposed.

3. No change is considered necessary in the present syllabus of instruction nor in the present allotment of time and marks.

MILITARY TRAINING OF SENIOR CADETS.

4. The Board considers it desirable that steps should be taken to enable the senior Cadets, before being gazetted to commissions, to gain a knowledge of their duties, as officers, in the interior economy, discipline, &c., of a regiment or battery.

THE CADETS.

ATTENDANCE.

5. The present course opened last September with a record attendance of a hundred and one Cadets, two of whom, however, have since been withdrawn. All the Provinces, even the Yukon Territory, are represented; but the quota from the Province of Quebec is disproportionately small. It is gratifying to note that five out of the thirty-eight Cadets who gained admission last September are sons of ex-cadets. This is valuable testimony to the high opinion entertained by men best capable of judging of the excellent educational advantages offered by the College.

DISCIPLINE.

6. The Commandant reported to the Board that the discipline of the cadets was satisfactory; that the members of the senior classes had shown no favouritism, and had been of great assistance to himself and the company officers; that there had been no serious cases of misconduct, and that the percentage of minor offences had decreased. So far as the Board could ascertain the relations between the several classes were harmonious. There seems to be a good feeling between Cadets and Professors, and the objectionable practices of 'hazing' and 'fagging' are things of the past.

MESSING.

7. Messing arrangements have now been taken over by the Permanent Army Service Corps, and the Commandant reported that the new system was working very well. In the opinion of the Board, the change which has been made is a great improvement. The food is adequate, both in quantity and quality, and the Cadets express themselves as perfectly satisfied.

CLOTHING.

8. With regard to the clothing supplied by the contractors, it was represented that the cloth is poor, and that the price charged for gold lace is excessive; that the trousers intended for use in the gymnasium are made of inferior material; and that the boots, or some of them, are of indifferent quality. The Board found, after careful inspection, that the tunics issued in the previous September had not lasted well, and that the trousers worn in the gymnasium shrank very much in the wash. The system in vogue is not satisfactory. It is recommended that cloth, gold lace, and other material should be bought by the Department, supplied to the Cadets on repayment, and made up in accordance with sealed patterns. It is also recommended that the Cadets should wear boots of the same kind as are manufactured by the Slater Shoe Company for issue to the Permanent Force.

RECREATION.

9. The means of recreation are excellent, though a commodious, but cheaply constructed wooden building for use as a skating rink in winter, and as a drill shed in wet

weather, is still a *desiratum*. The boat-houses are in such a state of dilapidation and decay as to be almost useless, and their renewal, or thorough repair, is urgently required. The Board would recommend that these matters receive the prompt attention of the Department.

CONDITION.

10. The cadets appeared to be happy and contented. Except as regards clothing (paragraph 8), they made no complaints.

THE COLLEGE STAFF.

11. The Commandant informed the Board that he continued to be well supported by his staff of professors and instructors, all of whom appeared to be devoted to their work. Technical instruction is provided on a system admirably arranged, and in some of the classes there has been a noticeable improvement since last year.

PAY OF COMMANDANT.

12. As regards the pay of the Commandant, the Board desires to repeat the recommendation which was made last year:—

'Notwithstanding that the Commandant and Military Professors made no application for any improvement in their respective positions, the Board is of the opinion that the appointment of Commandant of the Royal Military College deserves special consideration by the Department. The emoluments of this important office are the same to-day as at the date of the establishment of the college, thirty years ago, though the cost of living has increased nearly 40 per cent since that time. The Commandant has many claims upon him, and he should be sustained in the matter of pay in such a manner as to enable him to discharge them with dignity and a liberality befitting the position. The Board considers that an increase of 25 per cent in the emoluments of the Commandant would be no more than is warranted by the additional cost of living, &c., since the present rate of pay was fixed in 1878, and it recommends this for favourable consideration.'

PENSIONS.

13. The Board was approached with regard to the provision of pensions for members of the civil staff. Last year's report contains a strong recommendation, which is now reiterated, that pensions ought to be provided.

PAY OF CIVIL STAFF.

14. Questions arose relating to the emoluments of the civil staff. It was represented that, in view of the enhanced cost of living, salaries had been increased under the new Civil Service Act, and that, having regard to their duties and responsibilities, the members of the civil staff were inadequately paid. The Board concurs, and the following rates are recommended:—

First Grade.—$2,800 to $3,500 per annum. Professors of: Mathematics, Mechanics and Astronomy; Civil Engineering and Architecture; Physics and Chemistry.

Second Grade.—$2,000 to $2,500 per annum. Associate Professors of French and English.

Third Grade.—$1,500 to $2,000. Assistant Professors; Instructors in Mathematics, Chemistry and Civil Engineering.

It is further recommended that, with the approval of the Commandant, the salaries in each grade should advance by yearly increases of $100 until the maximum is reached.

DRILLS AND EXERCISES.

DRILLS.

15. The Cadets were seen at drill under their own non-commissioned officers, and they presented a highly creditable appearance. All of them were present on parade except one, who was on 'light duty.' They were steady in the ranks, and the non-commissioned officers gave their words of command with clearness and confidence. Movements were carried out with precision and the 'march-past' was very well performed.

EQUITATION.

16. Owing to the inclemency of the weather, there was no mounted parade, but the Commandant reported that fair progress was being made in equitation. It is very desirable that horses should be provided for the special use of the Cadets, and kept in the new college stables.

GYMNASIUM.

17. The Board visited the gymnasium ,and watched the Cadets perform. The second and third classes gave an admirable display of 'free gymnastics' and 'vaulting the horse.' The general physique of the Cadets is good, and the manner in which they went through their exercises reflects great credit on their instructors.

FIRE DRILL.

18. The Commandant reported that on the day previous to the Board's visit, he had caused the 'fire-alarm' to be sounded, and that everything went well. The Board, therefore, did not consider it necessary to repeat the experiment.

MUSKETRY.

19. A good deal of attention is bestowed on musketry. After a thorough course of preliminary instruction, the third class fires sixteen practices (five rounds at each practice) at distances varying from 100 to 600 yards. The first and second classes expend a similar number of rounds in a course of practices rather more difficult. The standard of proficiency reached may be judged from the average percentage obtained, namely:—

1st Class	49·95
2nd Class	47·34
3rd Class	47·96

HEALTH AND SANITATION.

20. The Medical Health Officer submitted, through the Commandant, a satisfactory report.

VACCINATION.

21. In the opinion of the Board, a Cadet should be required to produce a certificate (signed by a medical practitioner) that he has been successfully vaccinated not more than two years prior to the date of his admission to the College, and it is recommended that a clause to the foregoing effect be inserted in the College Regulations.

AMENDMENT TO REGULATIONS.

22. It is also recommended that the following be added as sub-para. (4) to paragraph 40 of the College Regulations:—

'In cases of illness or physical disability contracted before admission to the College, but not detected on medical examination, and of such a nature as to interfere with studies or military exercises.'

SANITATION.

23. In connection with the buildings, quarters, dormitory, class-rooms, &c., the sanitary arrangements were found satisfactory.

WATER SUPPLY.

24. As regards the supply of drinking water, the present system of filtration, sterilization and distribution gives good results. The Board visited the pumping-house, inspected the filters, and found everything correct. The Commandant reported that no case of illness had been traced to impure water, and all cause for anxiety in this connection appears to have been removed.

MILK SUPPLY.

25. Before being issued the milk is pasteurized, and the purity of the supply is thereby guaranteed. The Board inspected the apparatus and found everything clean and in good working order; but it is suggested that it would be better if the bottles in which the milk is kept were provided with stoppers of some kind.

FOOD.

26. In the preparation of food, the Board made it their business to ascertain that proper sanitary precautions were not neglected.

ACCOMMODATION.

GENERALLY.

27. With the ninety-nine cadets at present in residence, there is not much room to spare. At a pinch, however, eleven more could be admitted, making a total of one hundred and ten; but this would tax the dining-room accommodation to its utmost limit.

CLASS ROOMS.

28. The Board visited the several class rooms, and found them well heated and ventilated.

DORMITORY.

29. The dormitory was clean and comfortable. The new cupboards give the room a neat and tidy appearance. The hardwood flooring has not yet been completed.

LIBRARY.

30. Situated as it is on an upper floor of the main building, the library is, in the opinion of the Board, in the wrong place. In a commodious and suitable room on a

lower floor, it would afford easier access and permit the construction of better and more convenient shelves. It is in charge of the Professor of English who takes much interest in it. The rules regulating the issue of books appear to work in a satisfactory manner.

HOSPITAL.

31. The hospital was very clean and in perfect order. There were no patients.

STABLES.

32. Stables were completed three years ago, but they cannot be utilized because accommodation has not yet been provided for the men who are to take charge of the horses. Quarters should be built as soon as possible.

COLLEGE BUILDINGS.

33. The various College buildings are, on the whole, in a good state of repair. But in rear of the dormitory there is an old boat-house, which is in a tumble-down condition.

HEATING, LIGHTING AND FIRE PROTECTION.

HEATING AND LIGHTING.

34. The engine-house and pumping-station, as well as arrangements for heating and lighting, are under the entire control of the Public Works Department. The system is productive of many inconveniences which militate against efficiency. It is strongly recommended that the department concerned should give instructions to the engineers and firemen whom it employs at the College that they are to take their orders from the Commandant.

OUTER ENCLOSURE.

35. Last year the Board called attention to the fact that, in case of fire, the buildings in the outer enclosure would be practically unprotected, but no action appears to have been taken towards giving effect to the recommendations which were then put forward. The execution of the scheme for carrying water to the outer enclosure should be no longer delayed.

FIRE PROTECTION.

36. With the foregoing exception the system of fire protection appears to be satisfactory. But the hose stored at the various stations would be less liable to crack if it were not laid flat; and the Board repeats the recommendation which it made last year, that portable fire extinguishers of modern type should be provided.

ARMAMENT AND EQUIPMENT.

GUN SHED.

37. The gun shed and artillery armament were found in good condition. The armament comprises sufficient material for instructional purposes.

MODEL SHED.

38. The model shed was in good order; so also was the Engineer equipment, with the exception of the bridging spars, the supply of which should be renewed.

LABORATORY AND STORES.

39. The Board visited the several rooms allotted to the Professor of Chemistry. The laboratory was well equipped and there was nothing wrong with the apparatus. But much of the latter is no longer used, owing to the shortness of the College course, a circumstance which is to be regretted.

WORK-SHOP.

40. The equipment of the work-shop was very complete, and the carpentry work done by the Cadets proved their interest in, and the excellence of, the manual training thus afforded. Cupboards and study chairs for use in the Cadets' bed-rooms were being made in the shop and turned out in a very creditable and workmanlike manner.

LANDS.

GROUNDS.

41. Owing to bad weather and the season of the year, it was difficult for the Board to judge of the condition of the grounds, but the Commandant reported that he had sufficient men to keep them in good order.

NAVY BAY.

42. The Board visited the wharf and shore-line, at the back of the dormitory, on Navy Bay, and found everything in a very dilapidated condition, a portion of the wharf being washed away and the whole water-front requiring attention and repair. Notwithstanding that the Board has reported for several years upon these matters, nothing has yet been done, and the shore is suffering encroachment and buildings are tumbling down. The general appearance of this part of the premises reflects anything but credit on the College.

The Board was informed that plans had been prepared and tenders invited for the reconstruction in concrete of the shore-wall, and it is strongly recommended that prompt action be no longer deferred.

RIFLE RANGE.

43. The rifle range appears to be in a satisfactory condition and to be reasonably free from danger.

MISCELLANEOUS.

DISTRIBUTION OF COLLEGE REPORTS.

44. In order that the heads of educational establishments may be made acquainted with the syllabus for the entrance examination, it is recommended that copies of the yearly report on the examination for admission to the College should be issued by the Commandant to colleges, seminaries and preparatory schools through-

out the Dominion, and that copies intended for issue in the Province of Quebec should be translated into French.

MILITIA COURSES.

45. The courses of instruction held at Kingston for the benefit of officers are a great boon to the Militia, but they must not be allowed to encroach, to an undue extent, on the time and attention which the Military Professors should devote to the Cadets. The interests of the latter must be paramount; and if, as is not unlikely, the number of courses is increased, the College staff should be reinforced.

VISIT OF MEMBERS AND SENATORS.

46. In the last year's report reference was made to the desirability of bringing the admirable work done at the College more prominently to the notice of the Ministers of the Crown, Senators, members of Parliament and other officials at Ottawa; and the Board ventures to suggest that representatives of the Senate and the House of Commons should pay a visit to Kingston next June at the time of graduation. It would be to the advantage of the country if the value of the institution were to become better understood and more fully appreciated.

APPRECIATION OF SERVICES OF COMMANDANT.

47. During the present Commandant's tenure of appointment, which expires in October next, a marked improvement has been noticed at the College. The cadets have increased in number and improved in discipline; the opinion in which they are held is evidenced by the ease with which they obtain employment, after graduation, as surveyors and civil engineers; and Colonel Taylor is to be congratulated on the high standard which, largely through his personal influence, has been attained.

48. In conclusion, the Chairman and Members of the Board desire to express their thanks to Commandant and Staff for assistance rendered.

W. D. OTTER, *Brigadier-General,*
Chairman, Board of Visitors, R.M.C., 1909.

EUG. FISET, *Colonel,*
Deputy Minister, Militia and Defence.

T. BENSON, *Colonel,*
Commanding Royal Canadian Artillery.

C. E. W. DODWELL,
Resident Engineer, Public Works Dept., Halifax, N.S.

C. P. CHOQUETTE,
President of the College of St. Hyacinthe.

CHARLES F. WINTER, *Major,*
Deputy Assistant Adjutant-General, Secretary.

OTTAWA, ONT., 3rd May, 1909.

APPENDIX D.

REPORT OF THE SUPERINTENDENT DOMINION ARSENAL.

QUEBEC, July 26, 1909.

To the Honourable,
The Minister of Militia and Defence.

SIR,—I have the honour to report upon the operations of this establishment for the fiscal year ended March 31, 1909.

2. The appropriations voted by Parliament and expenditure during the year were as follows:—

Amount of appropriation for fiscal year ended March 31, 1909	$350.000 00
Sundry refunds	1,715 02
Amounts refunded for sale of scrap	58,809 88
	$410,524 90
Amount of expenditure for the fiscal year ended March 31, 1909	$336,461 41
Amount in Treasury to credit of appropriation on March 31, 1909	74,063 49
	$410,524 90

EMPLOYEES AND PAY ROLL.

3. Average number of employees 323. Total amount of salaries and wages paid, $125,574.53.

AUDIT OF BOOKS.

4. A complete inspection and audit of the books and accounts has been made by an officer from Headquarters, who will make an independent report. The system has been found generally satisfactory.

COST OF PRODUCTION.

5. The cost of production has fallen considerably as compared with last year. This is due to the lower price of metals, and to the sale of scrap which has been accumulating for some time and has been credited to manufacture. With improved storage facilities, it will now be possible to take scrap on charge as rapidly as produced, and fluctuations in cost will not be so great.

The sum of $7.000 was written off the steel shell plant last year, and a further amount of $1.800 this year. An additional sum of $?.200 will be written off next year, making in all $10,000. This is intended to cover the value of gauges and tools for 12-pr. B. L. Shrapnel Shell, which may not be used in future.

RECOMMENDATIONS.

6. The additional space for manufacture of Q. F. cartridges asked for in my annual report is urgently required, and should be provided without delay.

STATEMENTS.

7. The following statements are submitted:—

DOMINION ARSENAL—BALANCE SHEET, 1908-09.

Dr.				Cr.			
	$ cts.	$ cts.			$ cts.	$ cts.
To Balance Account:—				By Production Account:—		
For Capital (buildings, machinery and tools), on April 1, 1908, as per Capital Account (p. 58)	202,087 48			For articles manufactured and services performed as per abstract (p. 60)		256,995 35
For Stores in stock on April 1, 1908	160,187 44			By Sundries:—		
For Semi-manufactures, April 1, 1908	95,216 11			For amounts received and credited—		
		457,491 03		Accounts receivable, April 1, 1909	6 12	
To Sundries:—				Materials issued from Arsenal Stores	1,095 69	
For amounts expended, 1908-09—				Sale of scrap	58,809 88	
Salaries		21,682 08		Miscellaneous refunds	1,715 02	
Wages		103,892 45				61,626 71
Materials		179,020 46		By Balance Account:—		
Machinery		14,499 60		For buildings, machinery and tools, on March 31, 1909, as per Capital Account (p. 58)	213,233 86	
Buildings, additions—				For Stores in stock, March 31, 1909	164,501 00	
Gas plant, charged to Military properties	7,455 20			For Semi-manufactures, March 31, 1909	91,079 45	
Two danger buildings	4,333 18					468,814 31
Coal shed	1,069 94			For incomplete work chargeable to Capital:—		
		12,858 32		Gas plant	7,674 78	
Maintenance:—				Installation of Cartridge Q. F. Plant	7,206 85	
Amount charged to Military properties	1,126 41			Installation of automatic stokers	3,890 19	
Amount charged to Arsenal vote	1,025 57					18,771 82
		2,151 98				
Miscellaneous:—						
Stationery, printing and postage	437 63					
Cartage	2,630 12					
Travelling expenses	203 77					
Water supply	1,800 00					
Removal of snow	400 00					
Miscellaneous	6,276 14					
		11,747 66				
For customs duties without charge to Dominion Arsenal vote		2,857 53				
For accounts payable March 31 1909		7 08				
		806,208 19				806,208 19

DOMINION ARSENAL—CAPITAL ACCOUNT, 1908-09.

Dr. Cr.

BUILDINGS, MACHINERY, TOOLS, &c.

	$ cts.	$ cts.		$ cts.	$ cts.
To Balance Account:—			By Sundries:—		
For Net Capital on April 1, 1908—			For value of issues written off Capital Account—		
Buildings	116,518 41		Steel shell plant		1,800 00
Machinery	85,444 39		By Indirect Expenditure Account:—		
Tools	124 68		For depreciation during the year on—		
		202,087 48	Buildings	5,725 98	
To Sundries:—			Machinery	8,684 12	
For erection of gas plant building	7,455 20		Tools	27 04	
" two danger buildings	4,333 18				14,437 14
" coal shed	1,069 94		By Balance Account:—		
For new machinery purchased	14,499 60		For Net Capital on March 31, 1909—		
For new tools purchased	25 60		Buildings	121,850 75	
		27,383 52	Machinery	91,259 87	
			Tools	123 24	
					213,233 86
		229,471 00			229,471 00

DOMINION ARSENAL—STATEMENT OF LIABILITIES AND ASSETS, MARCH 31, 1909.

Dr. Cr.

Liabilities.	$ cts.	$ cts.	Assets.	$ cts.
To Net Capital	213,233 86		By Buildings, machinery and tools	213,233 86
Working Capital	274,351 31		Stores in stock	164,501 00
		487,585 17	Semi-manufactures	91,079 45
Accounts Payable		7 08	Incomplete work chargeable to Capital—	
			Gas plant	7,674 78
			Installation of Cartridge Q. F. Plant	7,206 85
			" automatic stokers	3,890 19
			Accounts Receivable	6 12
		487,592 25		487,592 25

STATEMENT OF INDIRECT EXPENDITURE, 1908-09.

Expenditure on the following services, not chargeable direct to orders :—			
Salaries of staff			$ 21,682 08
Motive power, heating and lighting—			
Wages	$ 2,472 60		
Materials	10,144 91		
			12,617 51
Maintenance of buildings			2,560 98
Water supply			1,800 00
Removal of snow			400 00
Travelling expenses			203 77
Stationery, printing and postage			437 63
Telephone			89 00
Miscellaneous charges			7,695 97
From Capital Account—			
5% depreciation on buildings	$ 5,725 98		
10% " machinery	8,684 12		
20% " tools	27 04		
			14,437 14
		$	61,924 08
Less—Amounts taken in relief of indirect expenditure—			
Adjustment of account			1,349 41
Net total		$	60,574 67

Note—This amount together with indirect expenditure of each factory has been distributed as a general percentage on direct labour in each factory as shown below.

General percentages on direct labour for the year 1908-09—

Workshop	74·80
Cartridge factory	94·87
Foundry	247·79
Rolling mill	92·19
Shell factory	89·08
Average rate	119·74

PRODUCTION STATEMENT, 1908–09.

Abstract of the Cost of Work performed.

	Quantity.	Rate.		Cost.
		Per.	$ cts.	$ cts
Boxes, ammunition, S. A. special	6,993	Each.	0 29	2,056 15
" " G. S., repaired	822	"	1 03	851 64
" " S. A. special, repaired	266	"	0 10	27 76
" " gallery practice or blank	453	"	0 86	390 29
" " " " repaired	363	"	0 35	129 28
" projectile, B. L. or Q. F, 12 pr. shrapnel and case	3,082	"	0 69	2,139 31
" " " " " repaired	13	"	0 55	7 25
" Ross rifle	1			82 84
Cartridges, small arm, ball, ·303 inch cordite, Mark VI	8,999,100	1,000	21 11	190,056 82
" " blank " " " V	500,000	1,000	14 26	7,130 93
" B. L. filled, 12 pr., 6 cwt., $12\frac{7}{16}$ oz. cordite, size 5, Mark II	4,014	Each.	0 45	1,810 90
" B. L. filled, 5 inch howitzer. $11\frac{7}{16}$ oz. cordite, size $3\frac{3}{4}$, Mark IV	1,998	"	0 43	875 79
" R. B. L., empty, silk cloth, 20 pr., $1\frac{1}{2}$ lb. blank	900	100	10 52	94 75
" empty, B. L., 15 pr., Mark I, gun, $1\frac{1}{2}$ lbs., blank	334	100	4 64	15 51
" " " 15 or 12 pr., $1\frac{1}{4}$ lb., blank	5,000	100	4 27	213 88
" " " 5 inch gun or howitzer, 3 lbs., blank	1,000	Each.	0 $06\frac{6}{10}$	66 07
Covers, cartridge, silk cloth, B. L., 5 inch howitzer, $11\frac{7}{16}$ oz. cordite	1,998	100	5 33	106 63
Covers, cartridge, canvas, B. L., 12 pr., 6 cwt., $12\frac{7}{16}$ oz. cordite, Mark I	4,014	100	4 64	186 64
Cases, cordite, 100 lbs., Mark I, original cost	30	Each.	5 11	153 36
" " " repairs only	30	"	0 14	4 15
Dogs, sawyers cross, 12 inch	20	"	0 69	13 82
" " straight, 12 inch	80	"	0 34	27 67
Experiments, Standing Committee on small arms				689 59
Handles, clamping screw, 6 pr	2	Each.	5 34	10 69
Planks, moving guns, half, 6 ft. x 12 in. x 3 in. oak	44	"	3 34	147 35
" " " 4 ft. x 12 in. x 3 in. "	92	"	2 29	211 48
" " " 9 ft. x 15 in. x 3 in "	16	"	4 36	69 89
" " whole, 10 ft. x 17 in. x 3 in. "	56	"	8 06	451 41
" " " 10 ft. x 17 in. x 3 in. fir	48	"	3 25	156 19
Plugs, fuze hole, G. S. with loop, Mark I	14,076	100	2 38	336 24
" armoury	2,000	Each.	0 30	619 86
Rollers, ground, 7 ft. x 12 in. diameter, oak, iron bound	2	"	21 50	43 00
" " 6 ft. x 10 in. " elm	5	"	3 42	17 11
" " 4 ft. x 10 in. " oak	2	"	2 50	5 00
Ross rifle inspection				216 96
" bayonets				779 66
Shells, B. L., empty, shrapnel, 12 pr., 6 cwt., Mark VII	10,076	Each.	2 32	32,704 85
" " " " " section.	1			7 47
Sights, fore, adjustible gun	3	Each.	0 50	1 50
Skids, 20 ft. x 15 in. square fir	20	"	22 00	440 02
" 20 ft. x 9 in. "	4	"	8 99	35 86
" 18 ft. x 5 in. x 4 in. square fir	32	"	6 79	217 28
" 14 ft x 8 in. square fir	8	"	4 65	37 23
" $11\frac{1}{2}$ ft. x 15 in. x 20 in. oak, bolted together	4	"	54 89	219 56
" 10 ft. x 9 in. x 15 in. " "	6	"	21 54	129 26
" $11\frac{1}{2}$ ft. x 10 in. x 20 in. " "	6	"	41 94	251 67
" 6 ft. x 12 in. square fir	151	"	4 61	697 27
" 5 ft. x 6 in. x 5 in. oak	19	"	1 61	30 59
" 4 ft. x 12 in. square oak	86	"	3 13	269 62
" 3 ft. x 9 in. x 6 in. oak	64	"	1 76	112 99
" 3 ft. x 6 in. x 5 in. "	56	"	1 01	57 03
" 3 ft. x 6 in. x 3 in. "	99	"	0 61	60 52
" 3 ft. x 5 in. x 4 in. "	40	"	0 66	26 77
" dismounting, 14 ft. x 8 in. square fir, bevelled with grummets	35	"	11 66	408 33
" dismounting, 10 ft. x 8 in. x 13 in. oak, bolted together	3	"	36 74	110 23
Shot, B. L. case, 15 or 12 pr., Mark V	7,002	"	1 55	10,867 12
Scotches, large, 12 in. x 6 in. x 6 in elm	164	"	0 17	28 80
" medium, 9 in. x 5 in. x 4 in. elm	170	"	0 08	13 73
" large handled, 12 in. x 6 in. x 6 in. elm	18	"	3 57	64 30
" small, 6 in. x 4 in. x $2\frac{1}{2}$ in. elm	186	"	0 04	7 48
				256,995 35

I have the honour to be, sir,
Your obedient servant,
F. M. GAUDET, *Lieut.-Colonel, R.C.A.*
Superintendent Dominion Arsenal.

APPENDIX E.

INTERIM REPORT OF THE MILITIA COUNCIL FOR THE DOMINION OF CANADA ON THE TRAINING OF THE MILITIA DURING THE SEASON OF 1908.

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom and a Baronet; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor-General and Commander-in-Chief of the Dominion of Canada.

May it Please Your Excellency:

The undersigned has the honour to present to Your Excellency an interim report on the training of the Militia of the Dominion of Canada, during the season of 1908; to be embodied at a later date in the Report of the Militia Council for the year ending March 31, 1909.

Respectfully submitted,

F. W. BORDEN,

Minister of Militia and Defence.

Department of Militia and Defence,
Ottawa, April 1, 1909.

1. The accompanying report briefly outlines the general scheme of training carried out by the Canadian Militia during the season of 1908, and appended will be found the report of the Inspector-General on the results of that training (Appendix Ei).

2. There is, also, appended the report of the officer commanding the militia at the Quebec Tercentenary Celebration (Brigadier-General W. D. Otter, C.V.O., C.B.) on the part taken by the troops on that occasion (Appendix Eii).

SCHEME OF TRAINING.

RURAL CORPS.

3. Early in the year, a "Memorandum for Camps of Instruction" was prepared and published. In it were defined the respective responsibilities of general and administrative staff officers; details were given as to the manner in which camp duties were to be performed; the methods to be adopted in carrying out musketry and judging distance practices were explained; and for each arm a syllabus of training was prescribed.

4. At the same time attention was drawn to the fact that a syllabus was merely intended as a guide. It might be varied at the discretion of the Camp Commandant. But nothing was to be allowed to interfere with proper attention being given to musketry, and the fullest possible use was to be made of available range accommodation.

5. So far as relates to drill, movements not essential to manœuvre in the field were eliminated; and in the training of cavalry and infantry special importance was attached to—

(*a*) Attack and defence;
(*b*) Information and reconnaissance;
(*c*) Orders, field messages and reports;
(*d*) Marches and protection.

Theoretical instruction in the foregoing subjects was to be provided by means of lectures, and results were subsequently to be tested by practical work in the field.

6. In addition to the training they received in camp, detachments of field and heavy artillery were sent to Petawawa for practice with service ammunition, instructions for practice being drawn up on the lines adopted in the Royal Artillery.

CITY CORPS.

7. The training of city corps was ordered to be carried out, as usual, at local headquarters, and attention was directed to the importance of taking advantage of rifle ranges wherever available.

PERMANENT FORCE.

8. Units of the Permanent Force are required to undergo, yearly, a progressive course of training, the instructions laid down for the Regular Army, in the training manual of each arm, being followed as closely as local circumstances permit, as follows:—

Cavalry—

September to March—Individual instruction.
March and April—Troop training.
May—Squadron training.
June and July—In camps of training.
August—Combined training in central camp, otherwise squadron training.

Horse Artillery—

September to March—Winter training (including battery manœuvre).
April and May—Battery training.
June and July—In camps of training.
August—Combined training in central camp, otherwise battery training.

Infantry—

September to March—Individual instruction.
April and May—Company and battalion training.
June and July—In camps of training.
August—Combined training in central camp, otherwise company and battalion training.

RETURN SHOWING NUMBER OF OFFICERS AND MEN OF THE ACTIVE MILITIA TRAINED DURING THE YEAR 1908.

9. The following return shows the number of officers and men of the Active Militia trained during the year 1908.

	Establishment.			Number Trained.			Untrained.		
	Officers.	N.C.O's and Men.	Horses.	Officers.	N.C.O's and Men.	Horses.	Officers.	N.C.O's and Men.	Horses.
District Camps.									
Goderich and Guelph	282	3,178	361	178	2,746	271	110	540	96
Niagara	581	6,374	1,718	385	5,440	1,357	199	935	361
Kingston	323	3,433	985	230	2,515	812	93	918	173
Ottawa	207	2,230	494	127	1,850	354	87	680	141
Three Rivers	196	1,924	139	119	1,575	68	78	349	71
Quebec	232	2,216	1,901	184	1,917	1,640	48	299	261
Levis	257	2,926	125	201	2,595	64	56	333	61
Sussex	230	2,497	636	171	2,378	552	58	121	84
Aldershot	282	3,203	673	213	2,943	530	62	263	147
Winnipeg and Brandon	111	1,028	902	81	871	767	30	157	135
Esquimalt	24	350	3	20	190	.....	4	160	3
Charlottetown	57	634	101	52	634	101	5	.....	.....
Calgary	93	756	703	73	669	631	20	87	72
	2,875	30,749	8,741	2,034	26,323	7,147	850	4,842	1,605
Local Headquarters.									
W. O. Command	387	4,617	83	328	4,530	61	59	187	18
E. O. Command	204	2,348	94	176	2,297	88	28	102	6
Quebec Command	361	4,171	494	259	3,702	229	102	469	265
M. P. Command	171	2,262	23	140	1,981	20	30	284	3
M. D. No. 10	73	774	15	68	660	5	6	114	10
M. D. No. 11	54	646	5	48	496	5	6	98	.....
	4,125	45,567	9,455	3,053	39,989	7,555	1,081	6,096	1,907

SCHOOLS OF INSTRUCTION.

10. Courses for officers and non-commissioned officers of the Active Militia were held, during 1908, at all Schools of Instruction from the 1st April to the 30th June, and from the 15th September to the 15th December.

11. In addition, Provisional Schools of Instruction were held at Charlottetown, Moncton, St. John, Montreal, Sherbrooke, St. Hyacinthe, Ottawa, Galt, Port Arthur, Morden, Lloydminster, Regina, Saskatoon, Calgary, Edmonton and Victoria.

SCHOOL OF MUSKETRY.

12. The usual spring course at the School of Musketry at Ottawa was cancelled, owing to the Quebec Tercentenary Celebration; but an autumn course, attended by 52 officers and non-commissioned officers, was conducted, on a system very similar to that which is adopted at the School of Musketry at Hythe, England.

The course is made to embrace—

(*a*) Preliminary training;
(*b*) Care of arms;
(*c*) Construction of rifle;

(*d*) Theory of rifle fire;
(*e*) Judging distance and range practice;
(*f*) Mechanism and employment of the machine-gun;
(*g*) Application and control of fire;
(*h*) Practical field training with the rifle, and comprehensive range practices.

SIGNALLING.

13. Advanced courses of instruction in signalling, both in camps of training and at local headquarters, were arranged for.

E. F. JARVIS,
Secretary,
The Militia Council.

APPENDIX E1.

OTTAWA, January 26, 1909.

From the Inspector-General, Canadian Militia,
To the Secretary, Militia Council, Ottawa.

SIR,—I have the honour to submit my report, as Inspector-General of the Militia, for the information of the Honourable the Minister in Militia Council.

1. I assumed the duties of Inspector-General on April 1, last, since when, either in person or by officers deputed to act for me, I have held inspections of nearly all units of the Militia Force. While on this subject a word of explanation may not be out of place.

2. Owing to the great extent of the Dominion, the large number of units to be inspected, and the comparative shortness of the season available for training, it is quite impossible for any one individual to inspect all the Militia in any one year. This will be at once seen when it is stated that the annual camps in Western Canada take place at the same time of year as the majority of those in the East.

3. Both the West and the East cannot, therefore, be inspected in the same year. In 1908 it was decided that the Inspector-General should inspect all troops West of Lake Superior, and as many of those in Eastern Canada as should, in addition, prove feasible.

4. Those which he was unable to visit were inspected on his behalf either by the Chief of the General Staff, the Adjutant-General, the Inspectors of Cavalry and Artillery, or by the Officer Commanding the District to which each unit belonged.

5. I was personally able to inspect the following troops:—

Cavalry—15 Regiments and 2 Independent Squadrons.
Artillery—7 Field Batteries.
3 Regiments, Fortress Artillery.
1 Brigade, Heavy Artillery.
Engineers—1 Field Company.
Infantry—39 Regiments and 3 Independent Companies.
Army Service Corps—4 Companies.
Army Medical Corps—4 Field Ambulances.

The remainder were inspected by other officers on my behalf.

6. I continued the practice, initiated by my predecessors, of submitting to the Militia Council, as soon as possible after the inspection of any corps, an abridged report thereon, in which the capabilities of the senior officers, the general condition of the corps, and any matters requiring early attention were brought to notice.

7. Upon those matters, to which it is undesirable to refer in a report which is to be made public, I have, from time to time, submitted separate confidential reports.

PERMANENT FORCE.

8. It is a matter of much regret to me that, owing to various circumstances beyond my control, I have not been able to make as thorough an inspection of the Permanent Force as I could have wished.

9. The principal duty of the Permanent Force is the instruction of the Active Militia, and, as this is carried on at the schools of instruction mainly in the winter months, and as, in consequence of shortage of funds, it has been found necessary to

stop, temporarily, the attendance of Militia officers at schools, I have been unable to test properly the manner in which instruction is imparted there. The instructional work of the Royal Canadian Horse Artillery and the Royal Canadian Garrison Artillery at Petawawa Camp, however, was decidedly good, while, judging by the results of the practice of the 1st Regiment, Canadian Artillery, which I witnessed at Halifax, N.S., the instruction imparted by the Royal Canadian Garrison Artillery at that station must have been excellent.

10. It is, of course, obvious that, before the Permanent Force can instruct the Militia, it must itself be efficient, especially at manœuvre and work in the field. Mere drill, though it has its value, can only occupy a secondary place, but in the regular stations of the Permanent Force there is hardly room for anything else.

11. The only way to train the Permanent Force properly, and to gauge its efficiency, is to assemble its units at Petawawa, as was done in the summer of 1907, and let them work together there, where there is ample space for manœuvre of all kinds.

12. Unfortunately, owing to the celebration at Quebec and difficulties in regard to expense, it was not found possible to bring the permanent units together for training this summer.

13. From what was seen of them at Quebec and at their own stations, it can be reported that, in barrack duties, interior economy and drill, the Force, as a whole, is very fairly efficient, though the drill has a tendency to be too much of the "barrack square" type—owing, no doubt, to the small amount of training ground available at their permanent stations and the smallness of the cadres. The several units turned out smartly at Quebec. The Cavalry were well mounted and rode well. The Royal Canadian Mounted Rifles did excellent work as instructors at the Western Camps.

14. The Royal Canadian Horse Artillery shows great improvement of late years, and the Royal Canadian Garrison Artillery companies at Halifax, N.S., and Esquimalt, B.C., and the Heavy Artillery Company at Quebec, are well up in their work.

15. The Royal Canadian Engineers have done good work at all stations, but especially at Halifax, N.S., and Petawawa.

16. The Royal Canadian Regiment was well turned out and did good work at Quebec during the celebrations. The headquarters at Halifax, N.S., are in a satisfactory condition, and have made progress since last year.

17. The Canadian Army Service Corps, the Permanent Army Medical Corps, the Canadian Ordnance Corps and the Army Pay Corps have all made progress, and amply justified the policy of organizing them. Their main value and utility lie in the services they render to the Militia at large, to whose comfort and efficiency they greatly contribute at the annual training camps, and who, without them, would not be able to take or keep the field.

ACTIVE MILITIA.

CAVALRY.

18. The Cavalry of the Active Militia were, on the whole, with one or two exceptions, better mounted this year than usual. But the horses are not yet what they ought to be. The best mounted corps were those of Saskatchewan and Manitoba.

19. The recent increase, from $125 to *$150, of the maximum amount of compensation payable by the Government for horses killed or injured on the public service has but recently been made public. When generally known, it ought to have a good effect in inducing owners to bring a better class of horse to camp.

20. In training and manœuvre power, generally, the Western Cavalry Corps are ahead of those in the East. There are but few of the latter which could be at all compared with the bulk of the Western Corps in efficiency. The principal reason for this is, no doubt, that the Western men are better riders, and, on the whole, better horsed.

*Since further increased to $175 to take effect from April 1, 1910.

21. It is difficult to state with accuracy the positive stage of efficiency reached by the Cavalry of the Dominion, but some of the Western Corps have reached a stage of drill and manœuvre highly creditable, considering the short period available for training. They have still much to learn in reconnaissance and advanced cavalry duties and in the use of the rifle, although in this latter respect they more than hold their own with most of the Eastern Corps.

22. Of the Cavalry of Eastern Canada, while one or two corps show creditable results, the majority of the Cavalry of Ontario and Quebec have not yet reached a satisfactory stage of efficiency. The Cavalry of the Maritime Provinces ranks distinctly higher.

23. In the case of Military Districts 3 and 4, it was pleaded that the camps were held at an inconvenient period of the year for the farmers, and that the Cavalry suffered thereby.

24. The weak point, with but few exceptions, of the great bulk of the cavalry inspected was inferior troop and squadron drill. If these have been well practised good regimental and brigade drill, or manœuvre, follow almost as a matter of course. It is noticeable that all the best regiments pay especial attention to this. And the good showing made by individual squadrons in the majority of corps is a proof of what can be done by keen officers who know their work.

25. One reason which can, with some justice, be advanced for failure, in so many cases, to attain greater efficiency is the defective nature of our present cavalry equipment. No satisfactory equipment for carrying the rifle mounted has yet been issued to the Cavalry. As a result, the trooper has in practice to devote one hand entirely to managing his rifle. To ride and manage properly an untrained horse with only one hand is a task for even a practised rider, and very few of the men in the ranks can claim to be good horsemen, or are in the habit of riding at other times. The result is that three-quarters of the man's attention are given to remaining on his horse, instead of to his drill.

26. If a satisfactory equipment were issued, much improvement might be looked for. The present long rifle should be replaced for mounted men by a good short rifle. The difference between the shooting powers of such an arm and of the present long rifle would be inappreciable, and the mobility and training of our mounted men would be enormously improved.

27. The clothing of the Cavalry is, on the whole, of good material and in very fair condition. But, except in the best regiments, the officers seemed unable to get the men to keep their clothing properly clean in camp—in some corps the men do not keep even themselves tidy, but turn out unshaven and dirty for inspection. The issue of jean suits has, however, greatly conduced towards the cleanliness of uniforms.

28. It is for consideration whether it might not be a good thing to abolish the present light coloured stripes on the breeches, and give some colour which does not show the dirt.

29. The regulation white helmet is not, in my opinion, a good headdress for militia cavalry. It might, with advantage, be replaced by the "naval pattern" cap.

30. The saddlery was generally in fair condition; in some cases it was very well cared for, but they were the exception. All portions of a corps ought to be equipped alike. In many corps some squadrons had "universal pattern" saddlery, while others had "colonial pattern." The rifle bucket which fits one of these does not fit the other. Different patterns of bit were often in use in the same corps. The "portmouth" pattern appears to be the best. It is for consideration whether the use of a single bridle rein should not be generally adopted, as is now the case with most of the Eastern Cavalry. A second rein is not really often necessary, and is apt to embarrass an untrained rider.

31. The armament of all squadrons in a corps is not always identical. This should be remedied as soon as possible.

ARTILLERY.

32. The Artillery force of the Dominion, as a whole, has maintained its last year's standard and, perhaps, made some further progress towards efficiency. In many cases, commendable zeal and keenness have been shown. In the opinion of many good judges, however, the present periods allotted for training and practice are no more than sufficient to bring artillery units up to a certain stage, beyond which any improvement is due to special qualifications on the part of individual officers and non-commissioned officers. In general, the work of the instructors during training is necessarily limited to details of drill; they get no opportunity for giving systematic instruction in the higher duties of artillery, such as reconnaissance and the taking up of positions for fire. Consequently, and owing to the large annual change in the personnel of units, the final stage reached each year as regards efficiency remains about the same.

33. There are many good officers in both the field and heavy artillery branches, but it is well known that the handling of modern field and heavy artillery demands much study and practice on the part of the officers who have to use it. And it can hardly be said that the advance in the knowledge of officers has kept pace with the inprovement in *matériel.*

34. The effective use of artillery in the field has become of more and more importance of late years. To make the best use of the efficient weapons provided requires ever-increasing skill.

35. The most feasible remedy, under present conditions, would appear to be to improve the general knowledge of officers and non-commissioned officers at the commencement of the annual training by encouraging better attendance at the Artillery Schools. At present, the attendance at the Heavy Artillery School at Quebec of military officers and non-commissioned officers is altogether inadequate.

36. In no arm has the beneficial influence of the central training camp at Petawawa been more marked than in the Artillery. The instruction there imparted is eminently practical, but it can hardly be denied that artillery officers, as a whole, have not shown themselves as proficient as they ought to be in observation of fire, in making deductions from their observations, and in rapidly adapting their measures to the conditions which presented themselves.

37. Improvement was noticeable in fuse-setting, gun-laying and the actual carrying out of battery duties. And, except in the Nova Scotia batteries, the horsing and harnessing of the guns and wagons showed an improvement upon last year. The class of horses brought into camp by the Nova Scotia brigade is poor and not suitable for artillery work.

38. It is unsatisfactory to be obliged to record a decreased attendance of batteries at Petawawa, as compared with last year. The 1st (Quebec), 4th (Hamilton), 14th (Cobourg), 24th (Peterborough) Field Batteries, and the 2nd, 3rd and 4th Companies, 7th Regiment Canadian Artillery, all failed to attend at Petawawa for gun practice. In 1907 only the 1st Battery failed.

39. The adoption of the Brigade system by the Field Artillery has been amply justified by results. The extra four days' drill in the year has likewise been of enormous advantage to the Artillery and that arm is still, on the whole, the best arm of the service.

40. As regards Fortress Artillery, it is satisfactory to be able to record continued progress on the part of the 1st Regiment, Canadian Artillery, which is entrusted with the working of an important part of the armament of the fortress of Halifax. The practice made by several detachments with both 12-pr. Q.F. and heavy guns was

excellent, and officers and men alike displayed commendable knowledge of their guns and how to use them.

41. It is hoped that in future reports it will be possible to record similar efficiency on the part of the corps allotted to the defences of Esquimalt.

42. The country owes a debt of gratitude to the Canadian Artillery Association for its continued efforts to promote the efficiency of the Artillery force. There has been some little danger in the past of prize winning being looked upon as the end, rather than military efficiency, but this tendency is disappearing.

ENGINEERS.

43. The Field Engineer Companies, even more than the rest of the Militia Force, suffer from the short period available for training. It is impossible to make an efficient infantry or cavalry soldier in twelve days. It is still more hopeless to make an efficient field engineer, even when full allowance has been made for the excellence of the material which is often available.

44. Under these circumstances, the Engineers suffer from attempting to learn too much, and, though it is difficult to determine what duties to omit, yet the situation should be faced, and only the absolutely essential duties practised.

45. Engineer companies are naturally obliged to hold a large amount of special equipment, and much time is taken up in only unpacking and repacking it. It would be better that a large portion should be left at headquarters as mobilization equipment, and not taken into camp at all.

46. The efficiency of companies is generally improving, and some are really good at special work. The Field companies generally, if properly trained, should make ideal Pioneer companies.

47. The want of Telegraph and Telephone companies is a serious matter, and their organization should not be delayed a day longer than is necessary.

CORPS OF GUIDES.

48. The Corps of Guides are rapidly becoming acquainted with their important duties, and some useful reconnaissances were carried out at the camps.

INFANTRY.

49. On the whole there is little doubt but that the Infantry of the Militia is steadily advancing in efficiency. Much of this advance has been due to the appointment of Brigadiers. As a rule these officers take great interest in their brigades, and do much to improve their efficiency.

50. The training of nearly all infantry corps in the Dominion suffers from the tendency of most commanding officers to forget that good company drill is the foundation for all more advanced training.

51. All battalions were inspected at company as well as at battalion drill, and it was invariably the case that the corps which did well in company drill did well, also, in more advanced work.

52. In City corps, too much attention is usually paid to purely ceremonial drill, and there is a tendency to perform all movements in a stereotyped manner. There is, perhaps, some excuse for this, as many of these corps have no ground on which to drill outside, and are, therefore, confined to the drill hall. The result is that attack and defence, advanced guards and outpost duty are seldom or never practised and the drill generally becomes cramped and jerky. There were several creditable exceptions, but as a rule company drill was poorly executed. I could not help thinking that some effort on the part of officers to utilize Saturday afternoons, the long even-

ings of the summer, or moonlight nights, for drill out of doors might produce better results. No satisfactory reason was ever advanced to show that this could not be done.

53. Local patriotism, especially in the larger towns, might well take the form of providing drill grounds for the local corps. When not needed for military purposes, they would form recreation grounds for the citizens generally. The difference in efficiency between city corps which had no place outside in which to drill, and those which had ground available, was markedly in favour of the latter.

54. The Field days which are annually held on public holidays in Military Districts Nos. 2, 7 and 9, and occasionally in other districts, have done much to give City corps more advanced training than they could otherwise obtain. It is a pity that they cannot be adopted as a regular event in all districts, and it is much to be regretted that Military District No. 2 could not arrange to hold one this year. The experiment of inviting City corps to send contingents for four days' training in the annual camps has been a decided success, and those corps which have sent contingents have profited much thereby. So far, however, attendance at camp has been almost entirely confined to City corps in Military Districts Nos. 2 and 9. These are probably the most efficient City corps in Canada.

55. A careful inspection of the Drill Attendance Registers of the City corps which I have inspected leaves me under the impression that many corps do not perform the number of drills for which they receive pay. I am aware that it is the fashion to claim that more drills are performed than are required by regulation. This is perhaps the case in the larger cities, but, in most other cases, if extra drills are really performed, it is certain that no satisfactory record of such drills is kept. In any case it appears to be almost universally claimed that three hours' drill is equivalent to a day's drill, that a Church parade, also, counts as a day's drill, and that each day spent on the pleasure trips, which some regiments take annually, counts for a day's drill. This can hardly be intended.

56. It is a matter for some regret that so large a proportion of the City corps crowd the whole of their annual drill into a comparatively small portion of the year. In practice the commencement of the annual drill depends upon the date in the spring when the local drill hall is warm enough to be used for drill with comfort. And, with the exception of Military Districts Nos. 2 and 9, the large majority of City infantry in Eastern Canada do not hold any drills in the fall, and press to have their inspections held by the end of June, from which date they do no more drill until the commencement of next year's annual drill.

57. Speaking generally, the Rural Infantry corps, except in Military Districts Nos. 5 and 7, have made a considerable advance of late years. It is impossible to obtain anything like efficiency in so short a period as 12 days' training, but the amount learnt by the average corps in that time is distinctly creditable.

58. As in the City corps, too little attention, comparatively speaking, is devoted to obtaining efficiency in company drill. There are, however, several exceptions to be made to this general criticism, and in some cases Company officers handle their companies really well.

59. The commonest fault found among Company officers in Rural corps (and, also, though to a less degree, in City corps) is a want of self-reliance, as shown by a disinclination to assert themselves and really command their men. This is a bad fault, and one far too prevalent in the Force generally. If officers are to be of any use at all, they must exercise command properly, control their men, and not leave mistakes uncorrected, as they now too often do. The men are willing enough to be commanded and disciplined if the officers know their work and are prepared to assert their authority.

60. Advanced guards, scouting and outpost duties appeared to have been but little practised.

61. Another weak point noticeable throughout the Infantry, but more especially in Rural corps, is ignorance of their duties on the part of Section commanders. The whole tendency of modern war and long range weapons is to give increased importance to subordinate leaders, and, if a force is to be efficient, it must find good men for these posts and train them properly.

62. Rifle practice in the Infantry, as in the Cavalry, steadily continues to improve. The Ross Rifle, with Mark III sight, was used for practice in the large majority of the camps, and with excellent results. The defects previously disclosed in this arm are evidently being remedied. Quite seventy-five per cent of the men firing easily reached the standard required for efficiency pay, and it appears to be worthy of consideration whether that standard (a very low one) should not now be raised. More practice at judging distance is still required, though it has greatly improved. Praiseworthy attention was given to musketry generally in the annual camps, with very satisfactory results.

63. At the inspection of the Infantry corps recently raised in the West, the utility of the Provisional Schools held in British Columbia during the winter of 1907-08 was amply demonstrated. In view of the great distance of British Columbia from the nearest Infantry schools, these Provisional Schools should be repeated yearly for the next year or two, at least.

64. The clothing of the Infantry was, generally, of good quality and in fair condition. It is, of course, difficult to keep clothing clean in camp, and the addition of a jean suit to the present issue would be a great boon, and probably, in the end, result in a saving to the public.

65. The quality of the boots shows some improvement on past years, though many men still wear a very poor article.

66. The equipment of the Infantry was, generally, in fair, sometimes very fair, condition. As a rule, only the belt and pouch—and in the Rural corps the kit bag—are in use. The remainder of the equipment issued is kept in store. If the remainder of the Oliver equipment is really only to be used on mobilization, it would be a boon to Company commanders to relieve them of its custody and place it in mobilization stores.

67. The arms, generally, are only in moderate condition, except where kept under charge of a government caretaker. Where issued for rifle shooting purposes in City corps, the men do not always seem to take the trouble to clean them after use. Company officers could do more than they do to remedy this.

68. The sooner the Ross Rifle can be supplied with a bayonet, the better. The absence of one causes unfavourable comment, and is a serious disadvantage.

ARMY SERVICE CORPS.

69. The work performed by this corps during the annual camps was almost everywhere satisfactory. The food supply was generally good, and there were few complaints. The supply of the troops present at the Quebec Tercentenary Celebration was well carried out, and was favourably commented on by the corps attending the fêtes.

70. The hired transport was usually of very fair stamp, and the equipment of the corps generally satisfactory. At only a few camps, at present, have the Army Service Corps companies the necessary facilities for doing both their own slaughtering and baking. The results are so good in these cases that the system might well be made universal.

MEDICAL SERVICES.

71. With few exceptions, the Medical Services at the annual camps and at the Quebec Celebrations were well carried out.

72. Sanitation received greater attention in camp this year than ever before, with results which fully justified the care bestowed on it.

73. The only two camps which were unsatisfactory in the two above respects were those at Three Rivers and Levis, P.Q.

74. The Field Ambulances as a rule were efficient. In two cases of accident, which occurred when I was present, the ambulance on duty in camp arrived on the scene with commendable promptitude.

75. While, no doubt, much remains to be learnt—especially in the handling of ambulances in the field—still the progress made in this branch of late years is decidedly good.

76. The Regimental Medical Officers and Medical Services are improving.

77. Generally speaking, the Medical Branch of the Militia is one of the most efficient branches of the Force.

SIGNALLING.

78. The Signalling Corps is making progress. Signalling, generally, is improving in all the City corps, and is making some advances in the Rural corps. The Signallers of the 77th Regiment (a Rural corps) show great proficiency, and have taken a high place on the general list.

79. The importance of the signalling service is very great. Useful as it is to the infantry arm, it is still more important to the artillery and cavalry, the former depending on it for much of their efficiency. More attention should certainly be paid to it by both these branches of the service.

ANNUAL CAMPS.

80. I, personally, inspected the camps at Quebec, Winnipeg, Brandon, Calgary, Kingston, Ottawa, and Aldershot, N.S. The remainder were seen by other officers on my behalf.

81. Speaking generally, all camps suffer from lack of sufficient space for training the troops. For cavalry especially the space is altogether inadequate. They cannot learn to move freely without sufficient room. The camp at Calgary was the best off in this respect, thanks to the public spirit of Colonel Walker, 15th Light Horse, and other gentlemen, who allowed the troops to work over their private ground.

82. Rifle range accommodation was good at Winnipeg, Brandon, Calgary, Ottawa and Aldershot, fair at Sussex, Levis and Three Rivers, poor at Goderich and Niagara, altogether wanting at Kingston. New Ranges are now in course of construction at Kingston and at Niagara.

83. The administration of the large majority of the camps was satisfactory, and the staff duties were smoothly and correctly carried out, except in one particular, viz., that in many of the camps, Commandants of Camps and their Chief Staff Officers failed to realize properly their responsibility for the efficient training of all troops in camp.

84. The proper training of the troops under his command is one of the most important duties of a commander, and his general staff ought to assist him. Yet many of the Commandants and Chief Staff Officers seemed to consider that they had done all that could be expected of them, when they ascertained that the sections of the drill book laid down in the "Syllabus of Training for Camps" had been practised by commanding officers. This is not enough. They should be helping, teaching and correcting the troops the whole time, and their plans for tactical training should be carefully thought out beforehand. Training measures require study and cannot be brought out on the spur of the moment.

85. The subsidiary services of the camps, especially the feeding and supplying of the troops, the sanitation of the camp area and the care of the sick were well carried out.

86. The camp site at Ottawa is unsatisfactory, in that it is badly drained, becoming a quagmire in wet weather, and it is much too restricted in area. The result was shown in the cramped movement of the troops trained there. The one redeeming feature of this camp is its excellent rifle range.

PETAWAWA CAMP.

87. The camp at Petawawa was inspected during the Artillery practice in August. The camp grounds are being systematically developed and the great natural advantages of the site fully utilized.

88. The camp was in good order and well administered, but it is somewhat to be regretted that, in organizing this year's camp and its staff, it was treated as a purely artillery camp. There has been a tendency in previous years to deal with the different arms of the service too much as if they were entirely independent of each other, and the Force generally has suffered in consequence. It is wrong therefore, to treat artillery practice as a thing unaffected by the tactics of the other arms. A General Staff Officer should be included in the staff of every camp, and should be made responsible to the Commandant that the training and instruction are conducted upon the lines of mutual support and co-operation between the various arms.

89. The new artillery ranges opened up this year have been a great success. The old ones were, from constant use, getting to be too well known. They also afforded too little scope for individual leadership and too much inducement to follow the beaten tracks. The new ranges have offered much more opportunity for rapid decision and initiative on the part of artillery leaders. And while the scores are generally inferior to those of last year, commanders have had a useful lesson on the necessity for grasping a situation at once and acting on their own responsibility only.

90. There is some room for doubt as to the safety of some of the splinter proof shelters in use for the observing parties at Artillery practice. It is advisable that all which can be permanently located should now be constructed in cement.

ARMOURIES.

91. There is great need for the adoption of some consistent policy in regard to armouries.

92. To begin with, there is always a certain amount of soreness felt by Rural corps at the large sums of money spent on armouries for City corps, when they themselves can get no accommodation.

93. Some inequality is, no doubt, unavoidable, but, even between Rural corps themselves, grave contrasts exist. Sometimes in the same regiment one squadron or company will have a good armoury, with caretaker provided, which it seldom uses, while another will have no accommodation of any sort, and its commander has to pay, out of his own pocket, far more than the Government allowance for care of arms.

94. This is especially the case in the West, where suitable buildings are scarce and rents and labour high.

95. If arms, saddlery, uniforms and equipment are to be kept in good condition, it is necessary to provide suitable accommodation, which, in the end, conduces to economy.

ARMAMENT AND EQUIPMENT.

96. The Inspector-General is, by his instructions, required to report upon the suitability and sufficiency of the armament and equipment of the Militia.

97. Upon the question of their sufficiency, I have already, in January, 1908, submitted, confidentially, a full report to the Honourable the Minister. During my past season's inspections I have seen nothing to require that report to be amended.

98. As regards the question of the suitability of its armament and equipment, I feel constrained to report that there is serious doubt whether the Cavalry, having at present for its only weapon the long rifle, or in some cases the carbine, can be considered to be suitably armed and equipped. There is some ground for the widely held belief that the Cavalry ought to have a second weapon.

99. As already remarked in the report on the Cavalry, the present long rifle and method of carrying it are not satisfactory. The choice seems to be between a good short rifle with special bayonet, and a carbine with sword or revolver. In view of the special conditions of the country in which the Canadian Cavalry might be called upon to operate and the short period available for training it to use its arms, the first alternative appears preferable. In either case it will be necessary to adopt a better method for carrying either the rifle or carbine, whichever is finally chosen, and to adapt the pattern of saddlery in use thereto.

100. The leggings issued to mounted corps are often not satisfactory either as to pattern or material, and several complaints were received. It does not appear to be properly shaped to fit a man's leg, and it is highly doubtful whether it would be found to stand the wear and tear of field service.

101. The issue of a waistbelt to all cavalry, which would be necessary for field service, together with pouches to hold additional ammunition, would also add greatly to the appearance of the uniform.

102. Field forges and field saddlery equipments are much needed by all cavalry corps. The present picketing gear is not satisfactory.

103. In view of the cold and inclement weather which sometimes prevails during the camps, especially in the Northwest, the issue of a blanket for each horse picketed out would be a great boon and much appreciated.

104. The armament and equipment of the Field Artillery appear to be on the whole satisfactory, having in view the approaching issue of the new 18-pr. Q.F. guns. At present, however, there has not been a complete issue to batteries of up-to-date appliances, such as telescopes, directors, dial sights, field telephones, &c., and some units would in the field be seriously embarrassed by their absence.

105. The harness and saddlery are generally satisfactory, though well founded complaints have occasionally been made of the leather used in certain portions of the quick release attachment, and mistakes have occasionally been made in the issue of equipment between the Mark I and Mark IV 12-pr. guns.

106. Defects have also manifested themselves in some of the newly issued gun-wheels, which were in use at the Petawawa Comp.

107. Apparently the material was good and the wheels had been duly passed by a trained Inspector, but some ominous looking cracks had developed themselves and it appeared doubtful whether such wheels would stand the strain of active service. This is a very important matter and demands careful consideration.

108. What has been said about the Field Artillery, in regard to up-to-date appliances, applies generally, *mutatis mutandis,* to the Heavy Artillery. Observation of fire and indirect laying are even more important and difficult with these guns than with the lighter ones.

109. If the Militia Force were called upon to take the field, it may be regarded as certain that the Field Artillery would require six-horse teams and the Heavy Artillery eight-horse teams throughout, and sufficient reserve harness should be kept in battery moblization stores to provide for this.

110. What has been said about the leggings issued to the Cavalry applies with equal force to the mounted men of the Artillery.

111. The armament and equipment of the Fortress Artillery are fairly complete and up-to-date.

112. The armament and personal equipment of the Engineers resembles, in the case of mounted men, that of the mounted men of the Artillery, and, in the case of dismounted men, that of the Infantry, and may be taken as being sufficiently dealt with under the heading of those arms.

113. As regards technical equipment, however, while what exists is good so far as it goes, the Field Engineers are sadly deficient. It may almost be said that the most pressing service need of the Militia is an Engineer telegraph and telephone unit, with a good practical field telegraph equipment, both cable and wireless.

114. A balloon unit and balloon equipment would be especially valuable in a country so thickly wooded as is Eastern Canada.

115. The armament of the Infantry is at present in a transition stage, and it is, therefore, hardly necessary to remark thereon further than to say that the Lee Enfield rifles are beginning to show signs of wear.

116. As regards personal equipment, the greatest need of the Infantry in the event of mobilization would be the means of carrying a proper supply of ammunition. The pouches of the present Oliver equipment are quite inadequate for modern needs.

117. The whole question of camp equipment for the field, especially in regard to cooking utensils, requires early consideration.

118. The supply of signalling equipment is making progress, but has not yet reached a satisfactory stage.

119. As regards Medical and Army Service Corps equipment, that in use is satisfactory so far as it goes, but it is by no means adequate to possible requirements.

120. Such veterinary equipment as exists is quite inadequate to meet service needs.

FORTRESSES.

121. The Inspector-General is required to report upon the condition of all fortresses and fixed defences throughout Canada and their armament. It is assumed that only modern fortresses and works are referred to, viz., Halifax, N.S., Esquimalt, B.C., and the works intended for the defence of the St. Lawrence river.

122. The works which comprise the fortresses at Halifax, N.S., and Esquimalt, B.C., are in both cases in a thoroughly efficient condition, with the exception of one of the auxiliary batteries at the latter place, where the foundations show signs of subsidence. This is being carefully watched and, under present conditions, is of little importance.

123. The armament mounted in both fortresses, and the electric light installations, are in good condition and well cared for in every way. The garrison at Esquimalt is, however, too weak for the duties it has to perform.

124. The construction of the new works on the St. Lawrence river has made satisfactory progress during the summer.

REPORTS ON OFFICERS.

125. Confidential reports upon nearly all District Officers Commanding, Commanding Officers of units and Officers Second in Command, discussing their capabilities for command and fitness for higher rank, have, in accordance with instructions, been from time to time submitted.

BOOKS.

126. In one respect I have made a departure from the instructions laid down for the guidance of the Inspector-General, viz., I have thought it desirable to inspect the office books kept by units.

127. Regulations (K. R. & O., para. 252) prescribe that, out of the allowances made to Officers Commanding units, squadrons and companies, these officers are to provide themselves with certain books, a list of which is given, which are to be at all times kept up

128. Speaking in general terms, these books are Order Books, Record Books and Ledgers of different sorts.

129. I found the greatest diversity in pattern of books to prevail and great differences in the care with which they are kept up. While in some few cases a good business-like system was in force and the books were well up-to-date, in the majority of cases the books generally were totally inadequate and afforded little or no protection to either the government or the individual.

130. As no especial pattern of book nor manner of keeping it is laid down, officers provide what they please and cannot well be criticised for a poor system of books.

131. The Regulation too is, in some respects, unpractical in itself and out-of-date. For example, it lays down that for each individual who joins a corps, a Regimental Defaulter Sheet, a Court-Martial Sheet and a Company Defaulter Sheet are to be provided, in case he should commit an offence.

132. Apart from the fact that in the Active Militia punishment is very seldom awarded, the provision of three documents imposes quite unnecessary clerical work upon the officers concerned, for one document only, the Company Defaulter Sheet, would answer all practical purposes.

133. I did not inspect a single unit of the Active Militia in which the Regulation was fully carried out.

134. It is obvious that in the case of a voluntary force where the officers are usually men employed in business pursuits, clerical labour should be reduced to a minimum. This is not the case at present. Moreover, badly kept books and unbusinesslike methods in a corps tend to deter good men from becoming officers.

135. It appears to me, therefore, to be well worthy of consideration whether a complete set of simple books should not be issued at the public expense, to all officers concerned, and these officers be required to keep them up properly. Several corps have excellent systems of their own, and it ought not to be difficult to select suitable patterns of books, &c., for adoption.

136. I found great diversity of practice to exist in regard to Service Rolls and the manner in which they should be kept. In many cases the men are required to sign them every year, which is not legal. A simple form of Service Roll and clear directions as to how it should be kept are much needed, and the regulations should then be enforced.

137. The form of Equipment Ledger generally in use contains a good deal that is not needed. A simple practical form should be devised and supplied, and officers should then be required to keep it up.

138. Many of the difficulties which now arise as to responsibility for loss of equipment would then be averted.

BARRACKS.

139. The barracks occupied by the several units of the Permanent Force are not generally in a satisfactory condition.

140. There is no one station, with the possible exception of Esquimalt, where the barracks are up to the standard of modern requirements, while the barracks at Kingston, Toronto, St. Jean and Quebec, are distinctly discreditable to the Dominion. They are all old and out of date, often out of repair, the men are unhealthily crowded at the two former places, the drainage is faulty and the medical officers of the Department have frequently brought to notice the serious sanitary risks which are run.

141. The troops do their best to keep their quarters clean and sanitary, but the Department cannot avoid grave risks while it allows the present state of affairs to continue.

142. The stable accommodation for horses is seriously deficient at Kingston and Toronto.

GENERAL REMARKS.

143. I observe, from the Interim Report of the Militia Council, for 1907, that my predecessor in the office of Inspector-General, whose death was so widely regretted throughout the Force, devoted a large portion of his report to the subject of "Readiness for War".

144. I regret that I cannot follow him in his views, for, while much of what he said was undoubtedly true, the assumptions which the circumstances of the case compelled him to make were so wide as, in my opinion, to rob his conclusions of much of their value.

145. All that can safely be said is that, during the past season, the Force in general has made appreciable progress towards efficiency and readiness for the field.

146. That it is not at present really efficient or ready for war is a mere truism. It is quite impossible for any force with only 12 days' training in the year to be either efficient or ready to take the field.

147. With two of his remarks, however, I desire cordially to associate myself. The first of these affirms the absolute necessity of having good officers, if imperfectly trained troops are to operate with success in the field. So far, our system has failed to provide us with a sufficient number of good officers, and it is apparently increasingly difficult to get the right men to attend the schools of instruction. The remedy can only lie in (1) Making the position of the officer more attractive by relieving him of expense—his pay and allowances never cover his expenses, those at his first camp do not even pay customs duty on his uniform—and of all avoidable clerical labour and demands upon his time, outside of annual drill; (2) In making the courses at the schools of instruction as attractive as possible, by studying the officer's convenience and imparting only such instruction as is essential and that in as practical a shape as possible; (3) In bringing instruction to the individuals concerned in those cases where a sufficient number of officers to be instructed can be assembled at any one time and place.

148. Secondly, I entirely associate myself with my predecessor's remarks as to the value of military training in schools. Mentally and physically it is a most valuable aid to education. From a military point of view, it is almost the only means by which a citizen force can hope to surmount the difficulties imposed by the practical impossibility of exacting an adequate period of annual training from adults.

149. The boy at school will insensibly absorb ideas of discipline, subordination and combined action. He will be far more alert mentally, and far more capable of making his way in life, than the untrained youth, and, so far as military efficiency is concerned, he will come into camp sensible of the fact that he owes a duty to his country, and familiar with at least the elements of military training. He can, therefore, be passed on at once to the more advanced portions of his work as a soldier.

I have the honour to be, sir,
Your obedient servant,

PERCY H. N. LAKE, *Major-General,*
Inspector-General.

APPENDIX Eii.

OTTAWA, March 23, 1909.

From the Officer Commanding the Canadian Militia,
Quebec Tercentenary Celebration,

To the Secretary the Militia Council, Ottawa.

SIR,—I have the honour to submit a report for the information of the Honourable the Minister in Militia Council, on the part taken by the Canadian Militia in the Quebec Tercentenary Celebration, on which occasion close on 14,000 men of all arms (excluding naval contingents) were collected together at Quebec, the largest concentration of Canadian troops ever yet effected.

2. The original intention was to concentrate a force which would have amounted to some 25,000 or 30,000 men; but for various reasons the scheme was found to be impracticable. The expense would have been very heavy; there arose difficulties connected with pay, and with annual drill and training; the transport of so many troops, in addition to crowds of visitors, would have imposed a severe strain on railway and steamboat companies; suitable camping grounds, within a reasonable distance of Quebec, were not easy to obtain; and on the Levis side of the river, although there was plenty of space, the supply of drinking water and the carrying capacity of the available ferry-boats were both restricted.

3. At one time, indeed, the obstacles in the way of carrying out a concentration appeared so formidable that, about the middle of May, it was decided to order all corps to perform their annual training, as usual, in camps of instruction and at local headquarters; to place at the disposal of the National Battlefields Commission a sufficient number of the Permanent Force to furnish escorts and guards of honour; and, in the event of additional troops being required, to provide transport and subsistence for such other regiments as the Commission might invite to attend, up to a total strength not to exceed 5,000 of all ranks, excluding the Quebec city corps, and at a cost, estimated at $85,000, not to be charged against the appropriation of $1,000,000 for annual training.

4. But early in June, at the earnest request of the President of the Battlefields Commission, it was finally decided that not less than 12,000 men, representing all arms and branches of the service, should be permitted to take part in the Celebration. City and Rural corps were to be provided with transport and subsistence, but, except in the case of corps performing at Quebec at the time of the Celebration their annual course of training, they were to receive no pay.

5. I had the honour to be entrusted with the organization and, subsequently, the command of the force, and with the assistance of my colleagues on the Militia Council, I prepared a scheme and completed preliminary arrangements.

6. I assumed command on the 14th July, and with the following Staff, established my Headquarters at the Court House, which had been kindly lent for the purpose:—

Asst. Military Secretary.—Brev. Col. W. G. Gwatkin.

A.D.C.—Capt. E. de B. Panet, R.C.H.A., Capt. D. D. Young, R.C.D., Capt. L. S. Macoun, 5th Princess Louise D.G. (extra); Lt. S. C. S. Kerr, Royal Grenadiers, (extra).

Chief Staff Officer.—Colonel F. L. Lessard, C.B., A.D.C.

Asst. Adjutant-General.—Major H. A. Panet, D.S.O., R.C.A.

Deputy Asst. Adjutants-General.—Lt. Col. A. T. Thompson, 37th Regt.; Lt. Col. O. E. Talbot, 17th Regt.

Asst. Quartermaster-General.—Lt. Col. J. L. Biggar, C.P.A.S.C.

Deputy Asst. Quartermasters-General.—Lt. Col. J. G. Langton, C.A.S.C.; Major G. A. Dodge, C.P.A.S.C.

Officer Commanding Artillery.—Colonel T. Benson, R.C.A.

Staff Officer for Engineer Services.—Capt. W. L. de M. Carey, R.C.E.

Intelligence Officer (Railway).—Brev. Col. S. Hughes.

Principal Medical Officer.—Lt. Col. G. C. Jones, P.A.M.C., G.G.H.S.

Sanitary Officer.—Major L. Drum, P.A.M.C.

Principal Veterinary Officer.—Vet. Lt. Col. W. B. Hall, R.C.D.

Principal Ordnance Officer.—Lt. Col. R. K. Scott, D.S.O., C.O.C.

Chief Paymaster.—Major W. R. Ward, C.A.P.C.

Provost Marshal.—Capt. W. P. Butcher, R.C.R.

7. The force was organized as shown below:—

(i) Gentlemen Cadets, Royal Military College of Canada.

One Company.—Major E. N. Mozley, R.E.

(ii) Corps Troops.

Royal Canadian Horse Artillery.—Lt. Col. H. E. Burstall.

Royal Canadian Dragoons.—Lt. Col. V. A. S. Williams, A.D.C.

Royal Canadian Garrison Artillery.—Lt. Col. C. E. English.

Royal Canadian Engineers.—Major J. Houliston.

Royal Canadian Regiment.—Lt. Col. R. L. Wadmore.

Canadian Permanent Army Service Corps.—Capt E. C. Dean.

Permanent Army Medical Corps.—Lt. Col. C. W. Belton.

Canadian Ordnance Corps.—Lt. Col. J. A. Morin.

Canadian Army Pay Corps.—Major S. J. R. Sircom.

(iii) 1st Division.

Headquarters.

Officer Commanding.—Brig. General W. H. Cotton.

Orderly Officer.—Lt. A. V. S. Nordheimer, R.C.D.

Asst. Adjutant-General.—Lt. Col. A. Bertram.

Deputy Asst. Adjutant-General.—Major A. E. Carpenter, R.C.R.

Divisional Engineer.—Capt. W. B. Lindsay, R.C.E.

Administrative Medical and Sanitary Officer.—Lt. Col. W. Nattress, P.A.M.C.

Divisional Paymaster.—Capt. C. N. Shanly, C.A.P.C.

1st Western Ontario Brigade.

Officer Commanding.—Lt. Col. J. W. Little.

Brigade Major.—Major S. C. Newburn.

7th Fusiliers.—Lt. Col. F. Reid.

13th Regiment.—Lt. Col. E. E. W. Moore.

21st Essex Fusiliers.— Lt. Col. F. H. Laing.

91st Canadian Highlanders.—Lt. Col. W. A. Logie.

2nd Western Ontario Brigade.

Officer Commanding.—Lt. Col. W. C. Macdonald.

Brigade Major.—Lt. Col. W. C. V. Chadwick, 9th Mississauga Horse.

2nd Queen's Own Rifles.—Colonel Sir H. M. Pellatt, A.D.C.

10th Royal Grenadiers.—Lt. Col. A. E. Gooderham.

48th Highlanders.—Lt. Col. D. M. Robertson.

Divisional Troops.

Corps of Guides.—Capt. R. W. Leonard.
No. 6 Co. Canadian Army Service Corps.—Major W. M. Tomlinson.
No. V Field Ambulance (for 1st and 2nd Divisions).—Lt. Col. K. Cameron.

(IV) 2ND DIVISION.

Headquarters.

Officer Commanding.—Colonel W. D. Gordon.
Orderly Officer.—Capt. A. S. A. M. Adamson, G.G.F.G.
Asst. Adjutant-General.—Lt. Col. T. D. R. Hemming, R.C.R.
Deputy Asst. Adjutant-General.—Lt. Col. D. D. Young, R.C.R.
Administrative Medical and Sanitary Officer.—Lt. Col. H. R. Duff, P.A.M.C.
Divisional Paymaster.—Capt. W. S. Conger, C.A.P.C.

3rd Western Ontario Brigade.

Officer Commanding.—Lt. Col. J. Mason.
Brigade Major.—Lt. Col. W. H. Ptolemy, 77th Regt.
1st Composite Battalion.—Lt. Col. R. MacKenzie, 27th Lambton Regiment (St. Clair Borderers)—composed of companies from the following regiments:—
24th Kent Regiment, 25th Regiment, 26th Middlesex Light Infantry, 27th Lambton Regiment (St. Clair Borderers), 28th Perth Regiment, 29th Waterloo Regiment, 32nd Bruce Regiment, 33rd Huron Regiment.
2nd Composite Battalion.—Lt. Col. W. Wallace, 36th Peel Regiment—composed of companies from the following regiments:—
12th York Rangers, 19th St. Catharines Regiment, 23rd Northern Pioneers, 31st Grey Regiment, 34th Ontario Regiment, 35th Simcoe Foresters, 36th Peel Regiment, 44th Lincoln and Welland Regiment, 77th Wentworth Regiment.
3rd Composite Battalion.—Lt. Col. W. P. Moore, 20th Halton Regiment—composed of companies from the following Rifle regiments:—
20th Halton Regiment ("Lorne Rifles"), 22nd Oxford Rifles, 30th Wellington Rifles, 37th Haldimand Rifles, 38th Dufferin Rifles, 39th Norfolk Rifles, 97th Algonquin Rifles.

4th Eastern Ontario Brigade.

Officer Commanding—Lt. Col. J. Hughes.
Brigade Major—Capt. E. E. Clarke.
The Governor General's Foot Guards—Lt. Col. D. R. Street.
14th Prince of Wales Own Rifles (with a company of the 49th Hastings Rifles and a company of the 56th Grenville Regiment "Lisgar Rifles" attached)—Lt. Col. R. E. Kent.
43rd Duke of Cornwall's Own Rifles (with a company of the 41st Brockville Rifles attached)—Lt. Col. S. M. Rogers.
4th Composite Battalion.—Lt. Col. R. H. Sylvester, 45th Regiment—composed of companies from the following regiments:—15th Argyle Light Infantry, 16th Prince Edward Regiment, 40th Northumberland Regiment, 42nd Lanark and Renfrew Regiment, 45th Victoria Regiment, 46thDurham Regiment, 47th Frontenac Regiment, 57th Peterborough Rangers, 59th Stormont and Glengarry Regiment.

Divisional Troops.

No. 5 Co., Canadian Army Service Corps—Major S. E. de la Ronde.

(v) 3rd Division.

Headquarters.

Officer Commanding—Brig.-Gen. L. Buchan, C.V.O., C.M.G., A.D.C.
Orderly Officer—Lieut. W. J. Press, 2nd Regiment C.A.
Asst. Adjutant-General—Lt. Col. J. S. Dunbar.
Deputy Asst. Adjutant-General—Lt. Col. W. J. Stewart, C.A.S.C.
Divisional Engineer—Major J. Houliston, R.C.E.
Administrative Medical and Sanitary Officer—Lt. Col. G. S. Rennie, A.M.C.
Divisional Paymaster—Capt. A. O. Lambert, C.A.P.C.

5th Quebec Brigade.

Officer Commanding—Lt. Col. E. B. Ibbotson.
Brigade Major—Major J. T. Ostell, 65th Regiment.
3rd Victoria Rifles of Canada—Lt.-Col. R. Starke.
5th Royal Highlanders of Canada—Lt.-Col. J. Carson.
65th Carabiniers Mont-Royal (with one company of the 64th Chateauguay and Beauharnois Regiment attached)—Lt.-Col. A. E. D. Labelle.
5th Composite Battalion—Lt. Col. A. T. Patterson, 85th Regiment—composed of companies from the following regiments:—11th Argenteuil Rangers, 53rd Sherbrooke Regiment, 84th St. Hyacinthe Regiment, 85th Regiment.

6th Quebec Brigade.

Officer Commanding—Lt.-Col. G. E. A. Jones.
Brigade Major—Capt. J. P. G. Ouellet.
8th Royal Rifles—Lt.-Col. W. C. H. Wood.
9th Voltigeurs de Quebec.—Lt. Col. O. Evanturel.
6th Composite Battalion (formation abandoned).

7th Maritime Provinces Brigade.

Officer Commanding—Lt.-Col. H. H. McLean.
Brigade Major—Lt.-Col. H. M. Campbell.
62nd St. John Fusiliers—Lt.-Col. M. B. Edwards.
7th Composite Battalion—Lt. Col. J. W. Baker, 67th Regiment—composed of companies from the following regiments:—67th Carleton Light Infantry, 69th Annapolis Regiment, 71st York Regiment, 73rd Northumberland Regiment, 74th Brunswick Rangers, 82nd Abegweit Light Infantry Regiment.

Divisional Troops.

No. 5 Section Signalling Corps—Capt. C. H. E. de Blois.
No. 10 Company, Canadian Army Service Corps—Major J. N. R. Guay.
Composite Field Ambulance—Major C. H. Gilmour.

(vi) Cavalry Brigade.

Officer Commanding—Lt.-Col. R. E. W. Turner, *V.C.*, D.S.O.
Orderly Officer—Major A. J. Price, 10th Hussars.
Brigade Major—Major C. M. Nelles, R.C.D.
6th Duke of Connaught's Royal Canadian Hussars—Lt.-Col. J. G. Barr.
7th Hussars—Lt.-Col. O. R. Pope.
10th Queen's Own Canadian Hussars—Lt.-Col. A. F. Ashmead.
11th Hussars—Lt.-Col. E. B. Worthington.
13th Scottish Light Dragoons—Lt.-Col. D. M. Stewart.
17th Duke of York's Royal Canadian Hussars—Lt.-Col. R. A. Brock.

(VII) FIELD ARTILLERY.

Officer Commanding—Lt.-Col. J. Davidson.
Brigade Major—Major W. C. Good.
6th Brigade Canadian Field Artillery (3rd and 21st Batteries)—Lt.-Col. W. A. Grant.
7th Brigade Canadian Field Artillery (15th and 22nd Batteries)—Lt.-Col. R. Costigan.

(VIII) GARRISON ARTILLERY.

Composite Regiment drawn from:—2nd Montreal Regiment, 3rd New Brunswick Regiment, Cobourg Company—Lt.-Col. H. McL. Davison.
6th Quebec and Levis Regiment Canadian Artillery—Lt.-Col. J. O. Martineau.

(IX) FIELD ENGINEERS.

4th Field Company—Major S. Howard.

(X) WESTERN CONTINGENT.

Officer Commanding—Lt.-Col. J. A. Hall, 5th Regiment, Canadian Artillery.
Adjutant—Lieut. P. T. Stern, 5th Regiment, Canadian Artillery.
Medical Officer—Capt. D. S. MacKay, Army Medical Corps.
Quartermaster—Major L. J. O. Ducharme, 13th Battery, Canadian Field Artillery.
Representative detachments, of all arms, from Military Districts No. 10, 11, and 13.

8. On the evening of the 14th July the British Squadron began to assemble. The Vice-Admiral Commanding, the Honourable Sir A. G. Curzon-Howe, K.C.B., landed on the following morning and received a salute of 17 guns. The Squadron included the battleships *Exmouth, Albemarle, Russell* and *Duncan,* and the protected cruisers *Arrogant* and *Venus.* Between His Majesty's ships and the Citadel there was of course no exchange of artillery salutes.

9. On the 17th, Field Marshal Earl Roberts arrived. He came, at the King's command, to represent the British Army. He was given a salute of 19 guns, and was received at the landing stage by a guard of honour furnished by the Royal Canadian Garrison Artillery. Lt. Col. S. Denison, C.M.G., Royal Canadian Regiment, was detailed to act as personal Aide-de-Camp.

10. On the same day the French battleships *Amiral Aube* and *Léon Gambetta* came to anchor; and as the representative of the French Republic, Vice-Admiral Jauréguiberry was received with military honours and a salute of 19 guns. Lt. Col. O. Pelletier was attached to the Vice-Admiral's staff.

11. Meanwhile the troops had been arriving, and transport arrangements worked smoothly and well. The concentration was practically completed by the 21st, on which date the strength of the several organizations was as shown below:—

Detail.	All Ranks.	Horses.	Guns.
Staff (including attached)	74	34	
Gentlemen Cadets	70		
Corps Troops	1,481	346	10
1st Division	2,968	93	
2nd Division	3,011	69	
3rd Division	3,046	88	
Cavalry Brigade	1,918	1,644	
Field Artillery	263	146	16
Garrison Artillery	411	2	
Field Engineers	67		
Western Contingent	242	73	
Total	13,551	2,495	26

12. Vice-President Fairbanks arrived on the morning of the 22nd. He had been preceded, the day before, by the United States battleship *New Hampshire* (Rear-Admiral Cowles). He was given a salute of 19 guns and was received by guards of honour as the representative of the neighbouring Republic. The services of Lieut.-Colonel V. A. S. Williams, A.D.C., were placed at his disposal.

13. On the afternoon of the same day the Prince of Wales arrived in the armoured cruiser *Indomitable* escorted by the armoured cruiser *Minotaur*.

His Royal Highness landed at 4 p.m. and drove to the Citadel, where quarters had been prepared for his reception, and where His Excellency the Governor-General was already in residence. The 43rd Duke of Cornwall's Own Rifles furnished the guard of honour at the King's wharf. Troops lined the streets from the landing stage, by Mountain Hill, to the Citadel gates; and a mounted escort was furnished by the Royal Canadian Dragoons.

14. The latter regiment, it may be remarked, as well as the Royal Canadian Horse Artillery, the Royal Canadian Garrison Artillery, the Royal Canadian Regiment and the Royal Northwest Mounted Police were constantly under arms while the Celebration was in progress, and they never failed in the performance of their duties.

The Prince of Wales has shown his appreciation of the services rendered by the Royal Canadian Dragoons by consenting recently to become their honorary colonel.

15. On the morning of the 23rd, there was a rehearsal, on the Plains of Abraham, of the Royal Review which was to be held there next day. As opposite the saluting base there was not enough room to allow all the troops to be deployed on the same alignment, they had to be formed in three successive lines, on rough and uneven ground. In rear of the saluting-point there had been erected a grand stand which, with the enclosures on either side of it, still further restricted the space available. Another encroachment which interfered to no little extent with movements and formations, was a stand which had been erected at the west end of the Plains, in connection with the arrangements for the Pageant. In the circumstances it was no easy task to handle troops in mass.

16. After the parade was over, the troops marched back through the city to their several camps; and in the afternoon, when a civic address of welcome was presented to His Royal Highness, a strong detachment (under Colonel Gordon) lined the streets from the Citadel, where the 13th Regiment was on duty, to the Champlain Monument, where a guard of honour was furnished by the 48th Highlanders.

17. In the forenoon, while naval visits were being returned by the Prince, the 3rd Victoria Rifles were posted at the King's Wharf; and in the evening, during a State dinner given at the Citadel, a guard of honour was mounted by the 62nd St. John Fusiliers.

18. The Royal Review was held on the morning of the 24th. The parade-state handed to the Prince showed the following figures:—

CANADIAN MILITIA.

	Personnel.			Horses.	Guns.	Wagons.
	Officers.	Other Ranks.	Total.			
Present on parade	841	11,581	12,422	2,134	26	16
Absent (on duty	56	1,170	1,226	246	.....	24
Absent (sick	5	99	104	115	.....	.....
Total	902	12,850	13,752	2,495	26	40

19. The march-past was headed by the Naval Contingents,—French, United States and British as detailed below:—

Detail.	Personnel.			Guns.
	Officers.	Other Ranks.	Total.	
French naval contingent	3	137	140	
U.S.A. naval contingent	12	267	279	
British naval contingent—				
Artillery (12-pr. 8 cwt)	13	180	193	10
Escort of Royal Naval Volunteer Reserve	6	50	56	
Seamen, 4 battalions	72	1,080	1,152	
Royal Marines, 1 battalion	10	325	335	
Band		50	50	
Total British naval contingent	101	1,685	1,786	10
Total naval contingents	116	2,089	2,205	10

20. Including Militia, Naval Contingents, and the Royal Northwest Mounted Police there was therefore on parade under arms a force of nearly 15,000. men

21. Before coming on parade, the Prince of Wales visited Wolfe's Monument, where there was mounted a guard of honour found, in equal proportions, by the 1st and 2nd Composite Battalions of the 3rd Infantry Brigade.

22. On attendance on His Royal Highness during the Review were His Excellency the Governor-General (whose personal staff included Lt. Col. A. Roy, Lt. Col. A. P. Sherwood, and Lt. Col. O. B. Shore, 18th Tiwana Lancers), the Honourable the Minister of Militia and Defence, Field Marshal Earl Roberts (who led past the Royal Canadian Artillery and the 2nd Queen's Own Rifles, of which two corps he is honorary colonel), Major-General Lake, Inspector-General, and, representing the Militia Council, Brigadier-General D. A. Macdonald, Quartermaster-General, and Colonel R. W. Rutherford, Master-General of the Ordnance.

23. The manner in which the regiments formed up, marched past, and moved away, gave evidence of good staff work and skilful handling. The difficulties of the situation have already been explained, and it was only due to orders being clearly worded, properly communicated and strictly obeyed, that the troops were enabled to carry out what was required of them without check or interruption

24. Where every man did his best, it would be invidious to make comparisons; but a word of praise is due to the soldier-like bearing of the infantry battalions composed of rural companies.

25. From the saluting-point the Prince proceeded to the Monument aux Braves where he was met by the Governor General's Foot Guards; and in the evening he attended an official ball given by the Government of the Province of Quebec, in the Parliament House, where the 7th Fusiliers posted a guard of honour, the 13th Scottish Light Dragoons furnishing a mounted escort.

26. The regiments began to return home on the night of the 24th July, and only sufficient men were kept at Quebec to furnish guards and escorts. The transport service had been carefully arranged with the railway companies whose officials were always ready to co-operate and to render all possible assistance. The departure of troops continued during the 25th, 26th, 27th and 28th, and entrainment proceeded with punctuality and without trouble or confusion.

27. On the 25th there was a Naval Review, and the Royal Canadian Regiment mounted a guard of honour at the King's Wharf. Afterwards there was a State performance of the Pageant on the Plains, and a mounted escort was furnished by the 17th Duke of York's Royal Canadian Hussars.

28. On the forenoon of the 28th the Prince proceeded to Victoria Park, where the 21st Essex Fusiliers (which regiment had volunteered to stay behind) posted a guard of honour; and in the afternoon the Royal Canadian Regiment performed a similar duty at Spencer Wood where His Royal Highness was received by the Lieutenant-Governor of the Province of Quebec.

29. In the evening of the same day the Prince of Wales left the Citadel (troops lining the streets) and re-embarked; but it was not until early morning next day that the *Indomitable* weighed anchor.

30. The following is a copy of correspondence which passed betweeen the Prince of Wales' Private Secretary and the Honourable the Minister of Militia and Defence:—

"DEAR SIR FREDERICK BORDEN,—

"The Prince of Wales directs me to convey to you the expression of his high appreciation of the very successful Review of the Canadian Militia, which His Royal Highness had the great pleasure of holding this morning. He is well aware that the work of conveying so large a body of men and horses to Quebec must have entailed much heavy work and careful organization; also that many of the troops could only have been present at considerable individual sacrifice.

"The Prince heartily congratulates you, Brigadier-General Otter and the Staff, upon the happy results of your efforts. The march-past was extremely well carried out, and His Royal Highness hopes that you will convey to all ranks his congratulations on the smart soldier-like bearing and steadiness on parade of the Canadian troops.

"Believe me,

"Yours very faithfully,

"ARTHUR BIGGE."

"CITADEL, QUEBEC, 24th July, 1908."

REPLY.

"DEAR SIR ARTHUR BIGGE,—

On behalf of myself, Brigadier-General Otter, and Staff, and the Canadian Militia generally, I beg to acknowledge our deep gratitude for the kind and gracious words of appreciation in which the Prince of Wales has been pleased to refer to the Review held by His Royal Highness to-day. Such words of commendation coming from His Royal Highness will, I feel sure, stimulate us all to put forth still greater efforts towards efficiency and will far more than repay the troops immediately concerned for any inconvenience or sacrifice involved in leaving their homes at this busy season of the year.

"Believe me,

"Yours very truly,

"F. W. BORDEN."

"QUEBEC, 24th July, 1908."

31. The contents of the foregoing letters were published in Orders as also were the following messages:—

"The Governor-General shares with the troops the pleasure they have derived from the compliments paid them by His Royal Highness the Prince of Wales, and His Excellency desires to offer all ranks his personal congratulations."

"Sir Frederick Borden desires to place on record his appreciation of the efforts which have been made to bring to a successful issue the concentration of the Militia at Quebec and Levis, and he congratulates all ranks on the excellence of the results obtained."

32. On the 30th July, the following order was issued:—

"In connection with the concentration at Quebec and Levis, His Royal Highness the Prince of Wales has been pleased to congratulate the troops on their appearance under arms, to recognize that sacrifices have been made, and to refer to hard work and careful organization.

"His Excellency the Governor-General and the Honourable the Minister have also expressed their satisfaction with the results which have been obtained, and the Brigadier-General Commanding has only to add that the troops have conducted themselves in a manner which reflects credit on their state of discipline, and on relinquishing command, he gratefully acknowledges the support which he has received from all associated with him in celebrating the Quebec Tercentenary."

33. With the exception of units and detachments forming part of the normal garrison of Quebec the troops lived under canvas.

The Gentlemen Cadets and the Corps Troops were accommodated on De Salaberry Square; the 1st (Brig. Gen. Cotton's) Division, to which were attached the Cavalry Brigade and the Western Contingent, were encamped at West Savard; the 2nd (Col. Gordon's) Division, with the Field Artillery, Garrison Artillery and Field Engineers, at East Savard; the 3rd (Brig. Gen. Buchan's) Division, at Levis.

34. No pains were spared to render life in camp as comfortable as circumstances permitted. In connection with the issue of supplies, the Army Service Corps deserves commendation; and as regards the provision of stores and equipment the Ordnance Corps succeeded in meeting all demands.

35. Also the Army Medical Corps did excellent service, and, in spite of the intense heat, the health of the troops was good. But owing to the unfortunate fact that the city water supply was cut off on one occasion during the hottest time of the day, it was impossible to prevent men drinking from polluted sources in the neighbourhood of the camps. As a result, cases of enteric which developed after the men had left Quebec, occurred among the troops encamped on De Salaberry Square. All, however, did well. A few cases also occurred among the troops encamped at East and West Savard, owing to water being taken from the St. Charles River for drinking purposes.

36. There was one fatal accident, Private R. Stevenson, 90th Regiment, Winnipeg Rifles, was drowned in the St. Charles River. The Prince of Wales with characteristic kindliness caused an expression of his sympathy to be conveyed to Private Stevenson's family and comrades.

37. On the whole, however, very few accidents occurred, in spite of the slippery state of the streets and the number of horses which were picketed out in the open.

38. In conclusion there is no doubt that although the work of the Militia on this occasion was mainly of a ceremonial character the concentration of such a large number of troops proved a valuable military experience. It afforded practice in the

execution of staff duties, especially in connection with transport, supply and general administration, as well as in the handling of large bodies of troops in mass; it stimulated the enthusiasm of all engaged, and served as a means of popular education.

I have the honour to be, sir,
Your obedient servant,

W. D. OTTER,
Brigadier-General.

REPORT

OF THE

DEPARTMENT OF LABOUR

FOR THE

FISCAL YEAR ENDED MARCH 31, 1909

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED FOR C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY.
1909

[No. 36—1910]

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, G.C.M.G., &c., Governor-General of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to forward to Your Excellency the accompanying Report of the Deputy Minister on the work of the Department of Labour of the Dominion of Canada, for the fiscal year ended March 31, 1909, all of which is respectfully submitted.

W. L. MACKENZIE KING,
Minister of Labour.

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REPORT

OF THE

DEPUTY MINISTER OF LABOUR

FOR THE

FISCAL YEAR ENDED MARCH 31,

1909

DEPARTMENT OF LABOUR,

OTTAWA, July 14, 1909.

To the Honourable W. L. MACKENZIE KING, M.P., C.M.G.

Minister of Labour.

SIR,

I have the honour to submit a report on the work of the Department of Labour for the fiscal year ended March 31, 1908.

It is satisfactory to be able to record that the Department continued during the year to develop actively along the lines laid down in former years.

The marked features of the year's work were the continued active operation of the Industrial Disputes Investigation Act, enacted, it will be remembered, on March 22, 1907; and the continuance of enquiries and missions arising directly or indirectly out of the question of Oriental immigration and the anti-Oriental outbreak at Vancouver, B.C., in September, 1907. The incident of the year which perhaps most intimately concerned the Department was the retirement of Mr. W. L. Mackenzie King, C.M.G., from the Deputy Ministership, a position which Mr. King had occupied from its inception.

The Department continued during the year to receive numerous and gratifying evidences of the recognition its work is receiving throughout the Dominion From many Departments in foreign countries entrusted with kindred duties also it has received requests for information as to methods of procedure, and copies of the laws and regulations entrusted to its administration, and has been many times assured that the Department of Labour of Canada stands high in the estimation of the outside world as a leading factor in the great work of social reform in which all progressive countries are to-day more or less actively engaged.

The growing influence of the *Labour Gazette,* too, the circulation of which to-day is higher than at any preceding date, nearly 14,000 copies having been distributed during the closing month of the fiscal year, apart from several hundred additional copies laid aside for subsequent distribution, is a further and most gratifying evidence of the increasing appreciation of the Department by the public and of the deepening interest in industrial questions manifested by important sections of the community. It may be added that the *Labour Gazette* is not circulated exclusively to any one class, but on the contrary includes among its readers on the one hand the most thoughtful representatives of the working classes and on the other hand the most progressive workers of the world of finance and commerce, as well as of the great majority of serious and active economic thinkers and workers. Several hundred subscriptions were received, for instance, during the year from the bankers of Canada, who had suddenly awakened to the value of the contents of the publication to those of their profession whose duties required them to follow the economic and industrial movements of the day. It may be added that the Dominion is undoubtedly more freely represented by the *Labour Gazette* in official and public offices and in institutions of learning in foreign lands than by any other Canadian journal. The importance therefore of placing the publication on a level where it may worthily represent Canada and place before the world a faithful and intelligent record of its industrial and economical progress from month to month cannot be too highly estimated.

ECONOMIC AND INDUSTRIAL CONDITIONS DURING THE YEAR.

The fiscal year 1908-09 continued to show in a diminishing degree the ill effects of the period of commercial depression which set in during the late summer months of 1907, beginning with a sharp financial stringency in the United States, which modified in a marked manner conditions in the Dominion. The changed economic situation, brought suddenly about in the latter half of 1907, caused the Government, it will be remembered, to take steps to eliminate the poorer class of immigration, which was done by requiring that each immigrant should on reaching Canada possess $50 or $25 in cash, according to the season of the year. This regulation was continued throughout the past fiscal year with the result that the poorer immigrants from Europe became greatly fewer in number; the number of immigrants from the United States meantime practically held its own, the home-seekers from that country being usually of a type not affected by the regulations mentioned. The actual figures of the immigration for the two years showed 262,469 arrivals for the fiscal period 1907-8 as against 115,561 for the fiscal period 1908-9. It may be added that the closing month of the last fiscal year, March, 1909, the first month as a rule to yield any considerable immigration returns, showed a considerable increase in the number of immigrants from the United States, the figures being respectively, for March, 1908, 6,162, and for March, 1909, 9,182.

At the date of writing there is every reason to believe that the immigration for the coming year will considerably exceed that for the fiscal year 1908-9. The excellent crop of 1908, the monetary return for which was placed at $432,500,000,

an unprecedentedly high total, assisted greatly in re-establishing Canada on a sound and healthy basis, though still hardly enabling it to attain to the high level of 1906 and 1907. An increased acreage in the West, and the continuance of projects of railway construction on an extensive scale give, at the present time, the best of prospects for the coming year.

Wages showed no great fluctuations during the year, but there was a tendency to fall in some industries, notably in inexperienced labour, lumbering and certain manufactures, particularly textile workers. There was more than the average amount of unemployment during the winter months. The cost of living remained about stationary, which is perhaps a satisfactory fact on the whole to record, the increase year by year previously since the beginning of the century having been very marked.

INDUSTRIAL DISPUTES.

The number of industrial disputes resulting in strikes or lockouts during the fiscal year 1908-9 was greatly less than during the preceding year, and smaller than for any period during which a record has been kept. Owing, however, to this diminished total including two strikes of unusually large dimensions and extending over a somewhat unusual period of time, the number of days' work lost on account of strikes was larger than for several years. The two strikes in question were those respectively of the machinists and carmen of the Canadian Pacific Railway and of the cotton mill hands in the province of Quebec. The first of these was the result of a change of schedule on the part of the management of the Canadian Pacific Railway with relation to the classes of employees concerned. The dispute was referred for investigation before a Board of Conciliation and Investigation established under the Industrial Disputes Investigation Act, 1907, as the provisions of that statute require, and the parties concerned not being in this way brought to an agreement, it was found impossible to avert the threatened strike. The strike, which extended throughout the length and breadth of Canada, lasted from August 1 to October 5, when it was formally settled by the acceptance of the terms recommended by the Board. The struggle caused some degree of inconvenience, but the public was perhaps agitated by alarm at what might and doubtless would have happened had the strike continued yet longer rather than by any injuries which were actually sustained.

The number of men concerned was estimated at about 8,000 and it is satisfactory to be able to state that although many of the strikers were undoubtedly reduced to a condition of considerable distress, there was at no time during the existence of the strike, so far as came to the knowledge of the Department, any incident approaching a disturbance of the public peace, or in fact anything other than a strict observance of the spirit of the law so far as it bore on the situation.

The other serious strike during the year concerned, as stated, the employees of the great cotton manufacturing companies of the province of Quebec, and again affected several thousand employees, occurring during the months of May and June. The frequent interruptions, extending over several years, to this industry on account of differences between employers and employees, suggested an unusual strain in the conditions of employment, and the Dominion Govern-

ment in the month of June appointed Mr. W. L. Mackenzie King, C.M.G., then Deputy Minister of Labour, a Royal Commissioner to enquire into the conditions under which the industry was carried on with special references to the causes of the frequent disputes. The Deputy Minister conducted an inquiry under this commission and a report of the same was duly presented to Parliament, an abstract of the report being contained in the present volume.

ADMINISTRATION OF THE INDUSTRIAL DISPUTES INVESTIGATION ACT.

The administration of the Industrial Disputes Act during the year was, as stated above, one of the marked features of the year's work. This subject will be fully discusssed elsewhere and it need only be remarked here that at the end of two years of active operation of the Act there were to be named but two instances in which industrial disputes, having been referred under the terms of this statute, were marked by strikes or lockouts, one such case occurring in each year; the difficulty in the fiscal year 1907-8, it will be remembered, concerned the Cumberland Railway and Coal Company of Springhill, N.S., and the difficulty in the fiscal year 1908-9 was that mentioned above relating to the machinists and carmen of the Canadian Pacific Railway Company. In both these cases the recommendations reached as a result of the inquiry under the Act were ultimately accepted by both parties and remain substantially the conditions under which in each case work is being carried on to-day.

The total number of disputes referred under the terms of the Act and disposed of during these two years was 55, of which 53 were disposed of without strikes or lockouts following. When it is remembered that the Act does not undertake to prevent or to settle all industrial disputes, but only to "aid" in the prevention or settlement, of disputes of a certain class, as is very explicitly set forth in its title—"An Act to aid in the prevention and settlement of strikes and lockouts," &c., it will doubtless be conceded that the law has established an admirable record for the first two years of its life. That it has "accomplished the main purpose for which it was enacted" was the conclusion of Mr. Victor Clarke, the eminent American sociologist of Washington, D.C., formed after a thorough investigation of the operations of the measure, conducted at the personal request of Mr. Roosevelt, then President of the United States. It may be remarked that several States of the United States have framed measures approximating that of Canada, and an act has recently been introduced into the Transvaal Legislature modelled closely on the Canadian law.

CONTINUED PUBLIC INTEREST IN THE ACT.

Enquiries continued to be received during the year from all quarters, and especially from the United States, with regard to the working of the Act, the fullest information being required and given. A curious and interesting development in this respect is the number of occasions on which the measure has been made the subject of debate between neighboring colleges and high schools in the United States, which have been brought to the attention of the Department by reason of requests for information; it is more than probable that there were

other such occasions when no such request was preferred and the incident did not, therefore, come to the attention of the Department. One instance will be sufficient to show the general character of these debates. In the month of February, 1909, a debate of the character indicated was arranged to take place between students representing the University of Manitoba and the University of Dakota respectively. The question at issue was the merits of the Industrial Disputes Investigation Act, 1907, and it curiously happened that it fell to the students of the American University to defend the Act in opposition to the arguments of the Canadian institution. The debate took place at Winnipeg on Feb. 26, the Hon. T. Mayne Daly, Minister of the Interior for Canada in a former administration, being in the chair. Three students spoke on either side and the Chairman decided that the supporters of the Act were victorious in debate. Judging from the correspondence files of the Department such debates must have been frequent among the university students of the United States, and there is some gratification in realizing that a piece of Canadian legislation should thus serve as a stimulus to enquiry and debate in foreign lands concerning the foremost economic question of the day. In furnishing information concerning the Act copies of the annual report of the Department are freely distributed and it has been therefore thought desirable to include in the present report the text of the Act itself; it is believed that this course may also prove a convenience for the general reader.

ORIENTAL IMMIGRATION ENQUIRIES, ETC.

Referring more fully to the second of the two notable features of the year's work mentioned above, namely, the further missions and investigations associated with the Department and arising more or less directly out of the problem of Oriental Immigration and the anti-Oriental disturbances at Vancouver, B.C., in September, 1907, it may be remarked that some of the enquiries of this class falling near the beginning of the fiscal year 1908-09 and the proceedings connected with which were briefly foreshadowed in the annual report of last year, are more comprehensively dealt with in the present volume. The enquiries and missions bearing on this subject which fell partly or wholly within the fiscal year 1908-09 were the following, namely:—

1. Mission of the Deputy Minister of Labour to Great Britain to confer with the British authorities on the subject of immigration from the Orient and from India in particular.

2. Enquiry of the Deputy Minister of Labour under Royal Commission into the losses and damages sustained by the Chinese residents of Vancouver, B.C., on the occasion of the Anti-Asiatic riots in that city September, 1907.

3. Appointment of Mr. W. L. Mackenzie King, M.P., C.M.G., former Deputy Minister of Labour, as a member of the British delegation to the Joint Opium Commission called to meet at Shanghai, China, in February, 1909.

The subject of Oriental Immigration continued to be a subject of deep interest to the general public, more particularly to the public of British Columbia where the great majority of the Oriental population is resident. The inflamed state of public feeling, noticeable a year ago, appears to have wholly disappeared,

owing doubtless to the diminution almost to the vanishing point of the numbers of immigrants from Japan and India respectively, a result achieved by the mission to Japan in 1907-8 of the Honourable Rodolphe Lemieux, then Minister of Labour, and by the mission to England in 1908 with reference to immigration from the East Indies, of Mr. W. L. Mackenzie King, then Deputy Minister of Labour.

In addition to the proceedings in connection with the enquiries outlined above, a report was presented to Parliament by Mr. W. L. Mackenzie King during the year on the result of an enquiry made by him into the opium traffic existing in Canada, evidence of which had come to his attention while conducting the enquiry into the Chinese losses at Vancouver. Recommendations looking to the suppression of the traffic which were included by Mr. King in the report were the basis of legislation enacted in the closing days of the 1907-8 session of Parliament. This voluntary enquiry and the legislation growing out of it appeared to afford special ground for the appointment of Mr. King to the joint Commission meeting at Shanghai. It may be mentioned in connection with this last named mission that Mr. King received instructions to proceed to China by way of India, and to avail himself of the opportunity of being in each of these countries to make for the information of the Government of Canada some personal enquiry into and concerning certain phases of the problem of Oriental immigration so far as it related to Canada, and to confer with the authorities of these countries.

RETIREMENT OF MR. W. L. MACKENZIE KING FROM THE DEPUTY-MINISTERSHIP.

There remains for fuller reference an incident of the year closely affecting the welfare of the Department and already mentioned briefly in the foregoing pages, the retirement, namely, of Mr. W. L. Mackenzie King, C.M.G., from the position of Deputy Minister, an office he had held from the inception of the Department in June, 1900. It is impossible in an official publication of the character of the present volume to make clear to what an exceptional degree the Department of Labour has been identified with its retiring deputy head, but it would appear to be a manifest obligation on Mr. Mackenzie King's successor to place on record the appreciation by himself and those who with him had served under that gentleman's direction of the broad lines on which the work of the Department had been conducted and of the spirit of earnestness and enthusiasm with which he sought, seldom without success, to inspire all those associated with that work. Mr. King, it may be further remarked, in a letter addressed under date of September 21, to the Minister announcing his retirement assigned as his reason for this course " a sense of public duty and a belief that the larger sphere of politics afforded ampler opportunities of public service." " There is hardly a phase of our national life," Mr. King went on to say, "which does not affect industrial conditions and which industrial conditions do not in turn affect, and my interest in the welfare of Canada and the people of this Dominion leads me to desire an opportunity of sharing in the solution of some of the larger problems which are arising and will continue to arise in this connection."

The Honourable Rodolphe Lemieux, Minister of Labour, in his letter of acceptance, after expressing his deep personal regret at the severance of Mr. Mackenzie King's relation with the Department, continued:—

"Well knowing, moreover, from my close association with you during the past three years your great capacity in affairs, your varied, and unique experience in matters affecting the great industrial issues of Canada, and the earnestness and zeal with which you have worked to promote the welfare especially of the wage-earning classes of Canada, I realize how severe for Canada would be the loss were your separation from the Department to entail a real interruption of your work. I look forward, however, to your finding in the larger arena of public life now opening before you, opportunity for continuing those efforts in the direction of industrial and economic advancement which have already earned for you a distinguished reputation far beyond the bounds of the Dominion."

At the General Election for the Dominion Parliament, which took place in October, 1908, Mr. Mackenzie King was elected a member of the House of Commons for the riding of North Waterloo.

APPOINTMENT OF NEW DEPUTY MINISTER.

The place of the retiring Deputy Minister was filled by the appointment from October 1 of Mr. F. A. Acland, who had been Secretary of the Department since March 1, 1907, and had been acting Deputy Minister during the frequent absences subsequent to that date, on account of various official missions, of Mr. Mackenzie King.

APPOINTMENT OF ASSISTANT DEPUTY MINISTER.

On March 16, Mr. Gerald H. Brown, of Ottawa, Ont., was appointed Assistant Deputy Minister of the Department, filling thus the vacancy caused by the promotion of Mr. F. A. Acland. Mr. Brown had been for many years a well-known Canadian journalist and possessed qualifications which appeared to make the appointment especially appropriate. Mr. Brown assumed his duties on March 22.

GENERAL WORK OF THE DEPARTMENT.

The general work of the Department continues throughout the year without interruption, showing continued development and expansion, these last mentioned being especially evident in the editing and circulation of the *Labour Gazette*, in the number of Fair Wage schedules prepared, and in the volume of inquiries concerning work of the Department received and answered.

DEPARTMENT ELEVATED TO SEPARATE PORTFOLIO.

It will be proper before concluding this chapter to refer to a further event of special importance and interest to all interested in the work of the Department, the announcement, namely, by the Prime Minister during the month of October, 1908, that it was the intention of the Government to elevate the Department of Labour to the rank of a separate portfolio, presided over by a Minister of

Labour. Hitherto, the Department had been attached for the most part to the portfolio of the Postmaster-General and the successive Postmasters-General from the days of Sir William Mulock had been also the successive Ministers of Labour. The representatives of organized labour in Canada had many times urged that this step should be taken and there is every reason to believe that under the new conditions contemplated the Department will find yet larger fields of work and will become a more potent influence in the social and economic life of Canada.

At the end of the financial year the projected change had not come actually into effect, but, slightly anticipating the course of events, it may be stated that during the last week of the session of Parliament the Premier introduced a measure framed on the lines indicated and providing that there should be a Minister of Labour who should have charge of the Department of Labour. The Bill passed both Houses and received the Royal assent on the prorogation of Parliament on May 19. On June 2, Mr. W. L. Mackenzie King, C.M.G., member for North Waterloo in the Dominion House of Commons and former Deputy Minister of Labour was sworn in ~~by~~ Minister of Labour and member of the Privy Council.

THE YEAR ABROAD.

In concluding this introductory chapter it will not be out of place to say that the period covered by the report has been one of special and peculiar interest to all interested in observing the economic and social movements of the world outside Canada. Few industrial countries have been during the year as free as Canada from the more disturbing aspects of the struggle between capital and labour. Disastrous and sometimes tragic strikes have been reported in many lands—Australia, New Zealand, Natal, Great Britain, France, the United States, etc., all far exceeding in gravity and loss any that Canada has experienced during the same period. On the other hand the year has seen legislation of the most advanced character on many social and economic questions by various countries, and especially by Great Britain. A reference to such matters does not fall strictly within a review of the work of the Department but it is one of the duties of the Department to endeavor to keep in touch with social and economic conditions the world over, and the literature of the year has teemed with evidences of legislative activity on these subjects.

EFFECTS OF THE CIVIL SERVICE AMENDMENT ACT.

The enactment of the Civil Service Amendment Act during the year affected the status of two members of the staff who by virtue of the provisions of the Act became permanent instead of temporary officers of the Department. The increase of clerical work required the appointment in January, 1909, of an additional stenographer.

CHANGES IN THE STAFF OF CORRESPONDENTS.

The following changes in the staff of correspondents of the *Labour Gazette* occurred during the year, viz.:—

J. R. Falconer, to be correspondent for Chatham, N.B., and district, to replace Theodore Debrisay, deceased.

A. Sharpe, to be correspondent for Peterborough, Ont., and district, to replace W. J. Johnston, resigned.

P. Obermeyer, to be correspondent for Hamilton, Ont., to replace S. Landers, resigned.

Wm. Drever, to be correspondent for Guelph, Ont., and district, to replace O. R. Wallace, resigned.

F. Urry, to be correspondent for Port Arthur, Ont., and district, to replace R. B. Harston, resigned.

Edmund Fulcher, to be correspondent for Brandon, Man., and district, to replace S. P. Stringer, resigned.

Geo. Howell, to be correspondent for Calgary, Alta., and district, to replace R. A. Brocklebank, resigned.

P. C. Foley, to be correspondent for Edmonton, Alta., and district, to replace J. A. Kinney, resigned.

NEW APPOINTMENTS.

The following correspondents were appointed at new centres:—

H. C. Harold, to be correspondent for Lethbridge, Alta., and district.

A. D. Pepin, to be correspondent at St. Johns, Que., and district.

Mr. E. Douglas Armour, who has been for some years the legal correspondent of the *Labour Gazette*, reviewing the legal decisions reported from month to month, was compelled by ill health to resign during the year and the vacancy has not yet been filled.

I.—THE LABOUR GAZETTE.

The *Labour Gazette*, the official journal of the Department, was published monthly in both English and French during the past year, as previously. In general scope the contents of the several issues were much the same as in the preceding year. A continuous effort, however, was made to increase the comprehensiveness of the information supplied and to improve the form in which it is presented. The number of brief special statements with regard to current events of importance from an industrial and economic standpoint was considerably increased in this connection during the past year.

Generally speaking the contents of each issue may be classified under three main headings as follows:—

I. A comprehensive review of industrial and labour conditions throughout Canada during the preceding month. This matter is further subdivided into:—(a) A general summary for the Dominion as a whole, this being the opening article of each issue; and, (b), a series of reports from the local correspondents to the *Labour Gazette*, resident in the several cities of the Dominion.

II. Special articles embodying the results of investigations conducted by the Department, or having reference to current events of importance. Under this heading is also published each month a review of proceedings under the Industrial Disputes Investigation Act, 1907, during the preceding month, with the text of the findings of the several boards conducting investigations under the act, judgments under the act, comment with reference to the act, etc. This matter, as in the previous year, formed an important part of each issue.

III. Statistical and other monthly returns and statements. These include separate articles with reference to immigration and colonization, trade disputes, industrial accidents, changes in wages and hours, recent industrial agreements, recent legal decisions affecting labour and reviews of blue books and other official publications received at the Department during the preceding months dealing with subjects of interest from the standpoint of industry and labour.

The following is a detailed statement of the various articles and returns published during the past year in the *Labour Gazette*:—

1.—MONTHLY REVIEW OF INDUSTRIAL AND LABOUR CONDITIONS.

(a) General Summary.

As above stated, the opening article in the *Labour Gazette* each month consisted of a review of industrial and labour conditions throughout Canada during the preceding month. In general scope and form the article was unchanged from the preceding year, though a few changes in detail were made. The primary object of the article is to set forth each month, in a comprehensive and at the same time concise manner, the nature and extent of industrial

activity and the amount of employment generally available for skilled and unskilled labour. In the opening paragraph a résumé of the industrial situation as a whole is given, with brief references to the more important features in the current labour market. This is followed by statements relating to the movement of wages, the cost of living as reflected in the wholesale prices of important staple commodities, and interruptions to industry caused by strikes, weather conditions, fires, floods or otherwise. Conditions in the several industries and trades are then indicated in detail under the following headings: Agriculture; fishing; lumbering; mining; manufacturing; railway construction; general transport; the building trades; the metal, engineering and shipbuilding trades; the woodworking and furnishing trades; the printing and allied trades; the clothing trades; the textile trades; the food and tobacco preparation trades; the leather trades; miscellaneous trades; and unskilled labour. The latest statistical and other information relating to trade, foreign and domestic, and to the public revenues of the country is added. Developments having an important bearing on the condition of industry and labour, in connection with such subjects as technical education, municipal ownership, combines in restraint of trade, etc., which from their nature cannot readily be included under the above headings, are dealt with in a series of notes appended to the article.

The review while wholly of the nature of an industrial and labour chronicle, is prepared with the special object of affording an index to probable conditions of employment for some months in advance. Conditions affecting the crop yield, for example, the progress of settlement in western Canada, and similar developments, are noted carefully from month to month, as exerting an influence beyond the immediate present. Similarly, the various contracts awarded in connection with railway construction, which has been carried out on so exceptional a scale during the past few years in Canada, have been noted, as being of special significance with regard to future as well as present conditions of employment.

In order to render the information collected by the Department as readily available as possible, a tabular statement is embodied in the article each month, showing by means of carefully defined terms the exact conditions of employment in the several trades and industries in the chief centres of industry throughout Canada. The table enables an accurate idea to be obtained, at a glance, both with regard to conditions in any particular group of trade throughout Canada and with respect to general conditions in each of the several cities.

The information embodied in the above review and table is collected from various sources. The newspaper press and the leading commercial and trade journals of the country are read from day to day, and reports contained therein, of interest from the standpoint of industry and labour, are clipped, and, after verification, are used in the preparation of the article. The monthly reports of the correspondents to the *Labour Gazette* are also summarized, the correspondents being required from time to time to furnish, in addition to their regular reports, matter of a special nature with regard to particular developments in their several localities. Information is also sought directly from the parties immediately concerned in current enterprises affecting the labour market.

Reports of Local Correspondents.

Immediately following the general review, the reports received from the several correspondents of the Department for the leading industrial centres of the Dominion are published from month to month, the order followed being from east to west. The reports are prepared on a common plan, and deal, 1st, with the general condition of the local labour market; 2nd, with conditions in the local industries; 3rd, with conditions in the several trades; and, 4th, with conditions in the surrounding districts. The correspondents also send in during the month returns on specially prepared forms information with regard to labour disputes, changes in wages, industrial accidents, labour organizations or employers' associations formed or dissolved, and local legal decisions affecting labour. In connection with the preparation of these reports the Department conducts an extensive correspondence with its several representatives in order to ensure accuracy and comprehensiveness in the information supplied. Newspaper items, brought to the attention of the Department through its clipping bureau, are in this way verified by the correspondents; on the other hand, the information contained in the correspondents' reports is continually used by the Department as a basis for further enquiries from the persons immediately concerned. Altogether more than 2,000 letters were sent out during the fiscal year 1908-09 in connection with the reports of the correspondents and the compilation of the general summary.

2.—SPECIAL ARTICLES.

(a) The Industrial Disputes Investigation Act, 1907.

By section 29 of the Industrial Disputes Investigation Act it is required that, for the information of Parliament and the public, the reports and recommendations of any board established under the act for the adjustment of an industrial dispute, together with any minority report, shall, without delay, be published in the *Labour Gazette*. A large amount of space was devoted from month to month to reporting proceedings in connection with the various applications received at the Department for the establishment of boards. The reports of the various boards were also published in full, being accompanied in most instances by brief statements outlining the procedure of the boards in arriving at a decision.

The following table shows the number of applications received at the Department from month to month, for the establishment of boards under the act, according to the record published in the *Labour Gazette*.

Month.	Number of Applications.
March	5
April	2
May	7
June	1
July	2
August	3
September	1
October	1
November	..
December	3
January	..
February	1

A full list of the parties from whom applications were received, as reported in the *Labour Gazette* during the year, is as follows:—

1. Employees of the King Edward Mine, Cobalt, Ont.
2. Lake Seamen's Union, being employees of the Canadian Lake Carriers, through the Dominion Marine Association.
3. Employees of the Manitoba and Saskatchewan Coal Company, Limited, of Bienfait, Sask.
4. Employees of the Western Dominion Collieries, Limited, Taylortown, Sask.
5. Mechanics' Lodge No. 23, Provincial Workmen's Association of Nova Scotia, being employees of the Cumberland Railway and Coal Company, Limited.
6. Various trades in mechanical departments of Canadian Pacific Railway, Winnipeg, Man.
7. Various trades in mechanical departments of the Canadian Northern Railway.
8. Employees of Ottawa Electric Railway Company, Ottawa, Ont.
9. Employees of Nova Scotia Steel and Coal Company, Limited, N. Sydney, N.S.
10. Employees of the Acadia Coal Company, Stellarton, N.S.
11. Employees of the Intercolonial Coal and Coke Company, Westville, N.S.
12. Employees of the Standard Coal Company, Edmonton, Alta.
13. Employees of the Port Hood Richmond Coal Company, Port Hood, N.S.
14. Railroad telegraphers, Canadian Pacific Railway.
15. Employees of the Maritime Coal, Railway and Power Company, Limited, Chignecto Mines, Cumberland County, N.S.
16. Employees of Cobalt Central Mining Company, Limited, Cobalt, Ont.
17. Locomotive firemen and enginemen, Canadian Pacific Railway Company.
18. Locomotive firemen and enginemen, Canadian Pacific Railway Company.
19. Carmen employed by the Quebec and Lake St. John Division of the Canadian Northern Railway Company.

20. Locomotive engineers employed by Canadian Northern Railway Company.
21. Employees of Quebec Railway, Light and Power Company, Quebec, Que.
22. Employees of the Galbraith Coal Company, Blairmore, Alta.
23. Employees of the John Ritchie Company, Quebec, Que.
24. Commercial telegraphers employed by the Michigan Central Railway Company.
25. Station and telegraph employees of the Kingston and Pembroke Railway Company.
26. Employees of the Manitoba Cartage Company, Limited, Winnipeg, Man.

List of Reports Published.

The following is a full list of reports of Boards published in the *Labour Gazette* during the year, accompanied in each case by statements relating to the proceedings of the Boards, and embodying in the majority of cases the text of the agreement arrived at as the result of the invoking of the Act.

1. Report of the Board established in a dispute between the Dominion Coal Company, Limited, of Glace Bay, N.S., and its employees. The report included the full text of an agreement concluded before the Board, and of a correspondence with reference to the report which passed between the Minister of Labour and the chairman. Certain resolutions adopted by the employees and the Glace Bay municipal council in appreciation of the terms arrived at were also printed. (*Labour Gazette*, April, 1908, page 1222.)
2. Report of the Board established in connection with a dispute between Messrs. John Marsh, John Howells and Stevens Bros., mine operators at Woodpecker, Alta., and their employees. The text of a minority report was also published. (*Labour Gazette*, May, 1908, page 1335).
3. Report of the Board established in connection with a dispute between the Hamilton Street Railway Company, the Hamilton and Dundas Railway Company and the Hamilton and Burlington Radial Railway Company, Hamilton, Ont., and their employees. The text of a minority report was also published. (*Labour Gazette*, May, 1908, page 1336).
4. Report of the Board established in connection with a dispute between the Lake Seamen's Union and the Dominion Marine Association, Kingston, Ont. The text of a letter from the men's representative was also published. (*Labour Gazette*, May, 1908, page 1342).
5. Report of the Board established in connection with a dispute between the Western Dominion Collieries, Limited, Taylortown, Sask., and its employees. The text of an agreement concluded before the Board was printed. (*Labour Gazette*, June, 1903, page 1439).
6. Report of the Board established in connection with a dispute between the Cumberland Railway and Coal Company, Springhill, N.S., and its employees. The text of a minority report was also printed. (*Labour Gazette*, June, 1908, page 1442).
7. Report of the Board established in connection with differences between the Ottawa Electric Railway Company, Ottawa, Ont., and its employees. The text of an agreement concluded before the Board was printed. (*Labour Gazette*, July, 1908, page 53).

8. Report of the Board established in connection with a dispute between the Canadian Pacific Railway Company and its mechanical departments. The text of a minority report was also published. (*Labour Gazette,* August, 1908, page 152. For statement *re* acceptance of findings by employees, see *Labour Gazette,* November, 1908, page 506).
9. Report of the Board established in connection with differences between the Standard Coal Company, Edmonton, Alta., and its employees. (*Labour Gazette,* August, 1908, page 160).
10. Report of the Board established in connection with differences between the Maritime Coal, Railway and Power Company, of Chignecto Mines, N.S., and its employees. (*Labour Gazette,* August, 1908, page 161).
11. Report of the Board established in connection with a dispute between the Nova Scotia Steel and Coal Company, of Sydney Mines, N.S., and its colliery employees. The text of an agreement concluded before the Board and of the chairman's covering letter was also printed. (*Labour Gazette,* September, 1908, page 287).
12. Report of the Board established in connection with a dispute between the Cobalt Central Mining Company of Cobalt, Ont., and its employees. (*Labour Gazette,* September, 1908, page 293).
13. Report of the Board established for the adjustment of differences between the Canadian Pacific Railway Company and the Order of Railroad Telegraphers *re* the dismissal of an employee of the Company. (*Labour Gazette,* October, 1908, page 399).
14. Report of Board established to adjust differences between the Quebec Light, Heat and Power Company, of Quebec, and its street railway employees.
15. Report of the Board established in connection with differences between the Queebc and Lake St. John Division of the Canadian Northern Railway Company and its carmen. (*Labour Gazette,* December, 1908, page 594).
16. Report of the Board established to adjust differences between the Canadian Northern Railway Company and the Brotherhood of Locomotive Engineers. (*Labour Gazette,* December, 1908, page 597).
17. Report of the Board established to adjust differences between the Galbraith Coal and Coke Company of Lundbreck, Alta., and its employees. (*Labour Gazette,* January, 1909, page 701).
18. Report of the Board in the case of a dispute between the Manitoba and Saskatchewan Coal Company of Bienfait, Sask., and its employees. The text of a minority report was also printed. (*Labour Gazette,* January, 1909, page 703).
19. Report of the Board established to adjust differences between the Canadian Pacific Railway Company and the Brotherhood of Locomotive Firemen and Enginemen. (*Labour Gazette,* February, 1909, page 862).
20. Report of the Board established to adjust the dispute between the John Ritchie Company, boot and shoemakers, Quebec, Que., and its employees. The text of an agreement concluded before the Board was printed. (*Labour Gazette,* March, 1909, page 970).
21. Report of the Committee of Conciliation, Mediation and Investigation to which, in accordance with section 5 of the Industrial Disputes Investigation Act, 1907, was referred for adjustment under the section relating to railway disputes under the Conciliation and Labour Act, certain differences between the Intercolonial Railway of Canada and the Freight Clerks' Unions at Halifax, N.S., and St. John, N.B. The findings of the Committee were printed in full. (See *Labour Gazette* for November, 1908, page 500).

In addition to the above reports various statements of a special nature with reference to legal decisions under the Act were published during the year. In the June, 1908, issue of the *Gazette*, the text of a decision rendered by the Stipendiary Magistrate for the County of Kootenay, B.C., was given. In the month of July two decisions under the Act were recorded by the courts of Alberta and a special reference to both was published in the *Labour Gazette* for the ensuing month. The Supreme Court of the same province rendered a judgment arising out of a charge of a breach of an agreement effected under the Act during the month of July, and the full text was published in the August *Gazette*.

During the spring of 1908, Dr. Victor S. Clark, of Washington, D.C., a noted American educator and labour expert, visited Canada for the purpose of making an investigation into the operation of the Industrial Disputes Investigation Act, and of placing the results of his investigation before the people of the United States. In this connection Dr. Clark first visited Ottawa, where he obtained, at the Department of Labour, full information with regard to the administration of the Act, with access to the records of its operation. He then proceeded to Montreal and the Maritime Provinces, in order to study the operation of the Act in the proceedings of the Boards which at that time were holding sessions in the localities mentioned. Subsequently Dr. Clark visited each of the other provinces and most of the industrial centres of Canada, studying the results of decisions under the Act. The results of this investigation appeared in the form of an extended article published in the May issue of the Bulletin of the United States Bureau of Labour. The report occupied in all over 80 pages of concise, and carefully written matter. After a discussion of the theory of the Act, its influence on conditions of employment and industry was dealt with. The administration and interpretation of the Act, its operation in particular cases, and the attitude of employers, employees and the public towards it were reviewed in detail. In conclusion, the value of the Act as suggesting the possibility of enacting a similar measure in the United States, was discussed. Following this the full text of the Act was given, with comments, clause by clause, by Dr. Clark. In view of the exhaustive nature of the investigation, and of the high character held by Dr. Clark as an authority on sociological and labour questions, a large portion of his report was reprinted in the *Labour Gazette* for September, 1908.

At the annual convention of the American Association for Labour Legislation, held in Atlantic City, N.J., on December 29 and 30, 1908, Professor Adam Shortt, of Ottawa, Ont., gave an interesting address on the Industrial Disputes Investigation Act. Professor Shortt, it will be remembered, prior to his appointment as one of the Civil Service Commissioners, under the Civil Service Amendment Act, 1908, was called upon to act as chairman in the case of a considerable number of Boards established to adjust disputes referred for settlement under the terms of the Industrial Disputes Investigation Act, and acquired in consequence a large experience of the workings of the Act in all its different phases. Prof. Shortt's address was, as its author pointed out, devoted to certain special observations derived from experience rather than to a systematic analysis of the Act or to a discussion in detail of its merits and defects. The

text of Prof. Shortt's paper was published in the *Labour Gazette* for January, 1909.

The same issue of the *Gazette* contained a special statement reviewing proceedings under the Act during the calendar year, giving a list of the Boards from whom reports had been received and a list of the disputes unsettled at the end of the year, together with a resumé of the general result of proceedings under the Act. Altogether, reports were received from twenty-five Boards of Conciliation and Investigation during 1908. In addition, four disputes were under consideration by Boards at the close of the year, one of which was in the case of an industry not to be classed as a public utility and was accordingly referred under the Act by the joint consent of the parties concerned. In only one of the disputes referred for adjustment under the Act during 1908 did a lock-out or strike occur, the exception being in the case of the Canadian Pacific Railway Company and its mechanics. In the majority of the other cases settlements were effected in accordance with the recommendations of the Boards, and in the remaining cases the threatened strike or lockout was averted.

A brief report of a debate between the students of the University of Manitoba and those of the University of North Dakota, in which the subject was the Industrial Disputes Investigation Act, was printed in the *Labour Gazette* for March, 1909.

(b) Royal Commission on Conditions in the Cotton Factories of Quebec.

Following certain industrial disputes affecting cotton mill employees in the Province of Quebec, and an interview during the month of May, 1908, of a delegation of textile workers from that province with the Honourable the Minister of Labour, the Deputy-Minister of Labour, Mr. W. L. Mackenzie, C.M.G., was appointed a commissioner "to investigate and report upon certain disputes between employers and employees in connection with cotton factories in the Province of Quebec and into the nature and causes thereof, and into the relations between employers and employees in the same or kindred industries and industrial centres other than those immediately affected." The Commissioner began his inquiry at Montreal, Que., in July. An adjournment occurred from the 18th of July until the 3rd of August, after which sittings were continued at other points in the Province until August 8th. Later, the Commissioner paid a visit to the mills of the Dominion Textile Company at Montmorency, Que., and to some of the large cotton mills at Lowell and Fall River, Mass. Detailed reports of the sessions and proceedings of the Commissioner were published in the *Labour Gazette* for August and September. In all fifty-six witnesses were examined by the Commissioner, including the managers and chief officers of the Dominion Textile Company and the Montreal Cotton Company, twelve superintendents and overseers, the leading union officers, twenty-three male operatives and nine female operatives. In addition, forty-nine exhibits were filed before the Commissioner.

The report of the Commission was laid on the table of the House of Commons on January 25, 1909, and an extended review of the same was published in the *Labour Gazette* for the following month. The review set forth in full detail the nature of the investigation conducted by the Commissioner, a descriptive

account of the cotton industry in Canada, an historical sketch of labour organization among Canadian cotton workers, an outline of the causes of the dispute of 1908, and some remarks by the Commissioner with regard to the effects of the tariff on the cotton industry. Perhaps the most vitally interesting portion of the report had reference to the employment of women and children in the cotton mills of Quebec, several pages being devoted by the Commissioner to a discussion of the conditions of labour as they affect these classes. Especially noteworthy were the representations made by the Commissioner regarding the employment of children under age. A sketch of the Quebec law bearing on the subject was given together with an examination of the general considerations involved. The report then set forth a number of suggestions with regard to the betterment of relations between employers and employees in the industry based on certain arrangements for the adjustment of wages in use in the Fall River mills. The conclusions of the Commissioner, arranged under fourteen headings, were quoted in full in the review, together with a reference to an appendix to the report in the form of a tabular statement of the strikes and lock-outs occurring in the industry since 1900.

(c) Oriental Immigration.

During the month of March, 1908, Mr. W. L. Mackenzie King, Deputy Minister of Labour, was despatched by the Government of Canada to Great Britain for the purpose of conferring with the various departments of the English Government on the subject of the immigration of East Indians to Canada. The terms of the report of the Committee of the Privy Council under which Mr. King's mission was undertaken, as approved by His Excellency the Governor-General-in-Council, were printed in the *Labour Gazette* for April, 1908. In the *Gazette* for the following month a statement was published with reference to the negotiations carried on by Mr. King while in England, and in the issue for June, 1908, the text of Mr. King's report on his mission, which had been presented to Parliament under date of May 4, 1908, was set forth in full, with the exception of the introductory portion. The statement as published in the *Gazette* described the nature of the interviews held by Mr. King with members of the British Government and others, presented an analysis of the causes of the emigration from India and of the methods adopted to restrict emigration, and in conclusion gave an outline of the underlying principles involved in the settlement of the problem of immigration within the Empire.

The text of an order-in-council requiring certain Asiatic immigrants to have at least $200 in their possession before being permitted to enter Canada was published in the *Labour Gazette* for July, 1908.

(d) Suppression of the Opium Traffic in Canada.

In the course of an investigation conducted by Mr. W. L. Mackenzie King, Deputy Minister of Labour, into the losses sustained by the Chinese population of Vancouver, B.C., on the occasion of the riots in that city in September, 1908, information was brought to light showing the existence on a considerable scale of the opium traffic in Canada. In his report as Commissioner, Mr. King made special reference to the evidence secured as to the extent of this traffic and con-

cluded with a recommendation that the Government of the Dominion and the Governments of the provinces should co-operate with the Governments of Great Britain and of China in an effort to free the people from an evil so injurious to their interests and well-being. The text of this portion of the report was printed in the *Labour Gazette* for July, 1908. A further special report by Mr. King with regard to the need of the suppression of the opium traffic in Canada was presented to Parliament early in July and was printed in the *Labour Gazette* for the following month. The report gave further details as to the extent of the traffic in British Columbia and the provincial legislation bearing on the matter, together with a description of the attitude of the British, Japanese and United States governments with regard to the traffic in opium. The need of Dominion legislation was strongly dwelt upon. Subsequent to the presentation of this report an Act "to prohibit the importation, manufacture and sale of opium for other than medicinal purposes," was introduced in the House of Commons by the Honourable Rodolphe Lemieux, Minister of Labour, and received the Royal assent on July 20. The text of the Act was reprinted in the *Labour Gazette* for August, 1908.

(e) Building Operations in Canada during 1907.

During the opening months of 1908, the Department made a special investigation into the nature and extent of building operations in Canada during the preceding calendar year. One of the most noteworthy features of the season of 1907 in Canada was the marked activity of building operations which accompanied the general expansion in commerce and industry. Not only was an exceptional amount of employment rendered available thereby to workingmen in the building trades, but those engaged in the manufacturing of building material were correspondingly affected. The statistics sought by the Department included the number of permits issued in all municipalities having a population of 5,000 and upwards, and the declared valuation of the buildings erected therein. In municipalities in which no system of issuing permits was in vogue returns based on estimates prepared by local architects, building contractors, assessment commissioners or others in a position to furnish reliable information were secured. The returns were further classified according as the work was in connection with new buildings or repairs. This information was presented in full in a tabular statement, corresponding details being added for the preceding year where such were obtained. Accompanying the table was a brief explanatory statement setting forth the general nature and extent of building operations during 1907 in each of the more important centres of population throughout Canada.

Altogether the Department secured detailed information for fifty-one localities,the return being complete for all localities with a population of 8.000 and over in Canada. The total value of buildings erected in these localities was shown to be $58,587,987.50. Of this amount the city of Toronto, Ont., contributed $14 325,800, being, as in 1906, the locality in which building was most active during the year. The city of Montreal, Que., with $8,406,136, stood second; Winnipeg, Man., stood third with $6,455,350; and Vancouver, B.C., fourth with $5,596,594. The remaining cities in which the value of building during 1907 exceeded $500,000, were: Hamilton, Ont., $3,030,240; Ottawa, Ont., $2,364,950; Edmonton, Alta.,

$2,275,218; Calgary, Alta., $2,109,249; Victoria, B.C., $1,500,000; Regina, Sask., $1,177,840; Medicine Hat, Alta., $1,000,000; London, Ont., $875,000; Halifax, N.S., $626,603; Berlin, Ont., $770,000; Stratford, Ont., $667,038; Brandon, Man., $557,180; Quebec, Que., $529,820; Guelph, Ont., $520,750; Sherbrooke, Que., $520,100; New Westminster, B.C., $520,000; and Brantford, Ont., $510,020.

Comparative returns relating to the value of buildings in 1907 and 1906 were obtained in the case of forty cities. These included all the larger centres. In these cities the total value of buildings erected in 1906 was $58,615,174, and in 1907, $56,305,792.50. The decrease of building in these cities in 1907 as compared with 1906 was, accordingly $2,309,381.50. The localities from which returns were received to the effect that the year was less active than in 1906, were Sydney and Halifax, N.S.; Charlottetown, P.E.I.; St. Hyacinthe and Montreal, Que.; Belleville, Welland, St. Catharines, Woodstock, London, St. Thomas and Sault Ste. Marie, Ont.; Winnipeg and Brandon, Man.; and Regina, Sask. The most notable decrease of the year took place at Winnipeg, Man., viz., $6,305,100. In all the other cities increases were shown. The localities in which the increase in the amount of building during the year compared with the preceding year was more than $500,000, were as follows:—

City.	Amt. of Increase.
Vancouver	$1,362,684
Toronto	1,165,402
Hamilton	1,105,425
Victoria	800,700
Ottawa	635,975
Calgary	626,265

(f) Labour Organization in Canada during 1908.

The Department published in the March, 1909, issue of the *Gazette* its usual statistical return with reference to the formation and dissolution of labour organizations in Canada during the preceding calendar year. The article was similar in form and scope to the reviews published on the same subject in previous years. A full list of the unions formed and dissolved was given, details being set forth, in the case of each organization, with regard to locality, date of formation, and other particulars, including in the case of dissolved unions information with regard to the cause of dissolution. The statistics were based upon information collected during the year from the daily press, from the trade journals of the several labour organizations, and from other sources, details being obtained or verified by correspondence with the secretaries of unions, trade union organizers, correspondents to the *Labour Gazette*, and other persons in a position to furnish accurate information.

According to the information received by the Department up to the end of February, 1909, the total number of labour organizations formed in Canada during 1908 was 197, and of organizations dissolved, 90. There was, accordingly, a net increase of 107 during the year in the number of organizations in existence.

Compared with 1907, the activity of organization was less pronounced, 232 organizations having been formed and 58 dissolved during that period, a gain of 174. The year, however, was much more active than 1906, in which 154 unions were formed and 85 dissolved, a gain of 69; than 1905, in which 103 unions were formed and 105 dissolved, a loss of 2; or than 1903, in which 148 were formed and 104 dissolved, a gain of 44. The only other year, in addition to 1907, in which the formation of labour organizations was more active in Canada since the record of the Department was established, was 1903, in which the total number of unions formed reached 275, and of unions dissolved, 54, a net gain of 221, being the largest recorded.

The following table, taken from the article, shows by industries and groups of trades the number of labour organizations formed and dissolved in Canada during each of the past five years respectively:—

DEPARTMENT OF LABOUR, CANADA.
STATISTICAL TABLES, IX, A. R. No. 1.

TABLE SHOWING BY INDUSTRIES AND GROUPS OF TRADES THE NUMBER OF LABOUR ORGANIZATIONS FORMED AND DISSOLVED IN CANADA DURING 1904, 1905, 1906, 1907, AND 1908.

Industries or Groups of Trades.	1904		1905		1906		1907		1908	
	Unions Formed	Unions Dissolved.	Unions Formed	Unions Dissolved.	Unions Formed	Unions Dissolved.	Unions Formed	Unions Dissolved.	Unions Formed	Unions Dissolved.
Agriculture	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Fishing	.....	.....	5	.....	12	.....	1	.....	.....	.....
Lumbering	.....	.....	.....	.....	.....	1	.....	.....	1	.....
Mining	14	4	3	1	7	5	19	2	13	10
Building	35	25	22	13	44	18	41	6	30	27
Metal	25	12	11	13	18	14	43	13	22	10
Woodworking	1	13	54	8	2	2	2	2	1	1
Printing	9	1	12	2	5	3	9	3	13	1
Clothing	20	3	7	4	7	6	8	4	7	8
Leather	1	.....	2	2	3	.....	1	1	.....	1
Textile	.....	.....	.....	.....	11	.....	11	3	1	1
Food and Tobacco Preparation	2	11	7	4	1	1	6	.....	8	5
Hotel and Restaurant employees*	.....	.....	.....	.....	.....	.....	8	.....	7	5
Railway employees	.....	.....	.....	.....	.....	.....	51	20	61	16
Street Railway employees†	.....	.....	.....	.....	.....	.....	2	1	2	.....
General transport	21	18	18	50	19	18	5	.....	4	1
Miscellaneous	14	14	6	1	13	13	17	3	20	4
General Labour	5	7	4	2	4	2	5	.....	2	.....
Trades and Labour Councils	5	.....	2	1	8	2	3	.....	5	.....
	148	104	103	105	154	85	232	58	196	90

* Included under "Food and Tobacco Preparation" in 1904, 1905 and 1906.
† Included under "General Transport" in 1904, 1905 and 1906.

The article also contained tables showing the number of organizations formed and dissolved according to provinces and months. A table showing the number of charters issued or withdrawn in Canada during the year by the leading international labour organizations was also included.

(g) Unemployment during the Winter Season, 1908-09.

As is well understood, the advent of winter in Canada usually throws a number of workmen engaged in outdoor occupations out of employment, and the extent to which these conditions are intensified by other agencies is of great importance at that season of the year. During the winter 1907-08 conditions in this respect were very favourable and the possibility of a recurrence of the situation during the winter of 1908-09 was a matter of apprehension at many points in the closing months of 1908. With a view to presenting information of a thoroughly reliable character in this connection, for use in dealing with prevailing conditions, the Department obtained from the correspondents of the *Labour Gazette* during the closing week of December, 1908, a special statement setting forth the extent of unemployment in their several cities or districts. These reports were published under a separate heading in the January, 1909, issue of the *Labour Gazette.*

It was shown by the reports that, except in one or two localities, conditions in this respect were considerably more favorable than at the corresponding period of the previous year. In the Maritime provinces, dullness in the lumbering industry and quietness in or about the collieries caused a good deal of short time and unemployment, and in Quebec and Ontario the continued quietness in manufacturing, an industry usually unaffected by seasonal influences, and in lumbering, which as a rule employs large numbers during the winter, produced a similar result. The comparatively light snowfall and the late opening of the ice-harvest also affected employment. On the other hand, the restrictions on immigration exercised by the Dominion Government during the previous season were found to have had a beneficial effect, and a gradual improvement in financial and commercial conditions after the set-back of 1907 was reported in progress. In Western Canada the favourable crop returns rendered conditions comparatively buoyant. The lumbering industry in British Columbia was very dull, but metalliferous mining was active, and the situation as a whole showed a decided improvement over that of the preceding winter.

(h) Sunday Labour on Railways.

During the month of August, 1908, applications were made by the Grand Trunk and Père Marquette Railway Companies before the Board of Railway Commissions with reference to the interpretation of certain sections of the Lord's Day Act. More particularly the reference was to the handling of trains of cars on Sunday and the definition of what constitutes works of necessity for railroads under the act. The applications came up for hearing during September and the Department of Railways and Canals, the Lord's Day Alliance, the Rational Sunday League and the two Railway Companies were represented by counsel. The Department of Labour was also represented by counsel at the hearing in order to place before the commission certain representations received on behalf of various railway organizations in support of the Lord's Day Act in its present form and opposing the appeal of the railway companies. The *Labour Gazette* for September contained a special statement with reference to the action

of the Department, whilst the *Labour Gazette* for November contained the text of the findings of the Board of Railway Commissioners in the applications mentioned.

(i) Special Articles Relating to Co-operation.

The following special articles relating to co-operation in Canada were published in the *Labour Gazette* during the year:—

1. An official return relating to *Co-operative Production and Distribution in Ireland* during 1906, was noted in the June, 1908, issue.

2. *Co-operative Arrangement of Stanley Mills & Company, Limited, Hamilton, Ont.*—About five years ago the business of Stanley Mills & Company, Limited, operators of a departmental store at Hamilton, Ont., was reorganized, and an arrangement adopted whereby the employees of the firm were allowed to secure a financial interest therein. A savings department for employees was established, and after operating for about five years some 496 shares out of the 1,000 shares of preferred stock available had been taken up by the employees. In a special article published in the April, 1908, *Gazette*, the nature of the arrangement was described, and the financial report of the Company for 1908 set forth.

3. *The Brantford Co-operative Association, Limited.*—During the winter of 1908 a co-operative distribution association was organized at Brantford, Ont. A special article dealing with the origin of the association, its working methods, and other features of its administration, was published in the May, 1908, issue of the *Labour Gazette*.

4. *The Workmen's Store Company, Limited, of Dominion, N.S.*—A special reference was published in the May, 1908, *Gazette* to the progress of this company during the preceeding six months' period.

5. *The Montreal Industrial Co-operative Society, Limited.*—A special article dealing with the organization and rules of this concern was published in the *Labour Gazette* for December, 1908.

6. *Labour Co-partnership in the Shipbuilding Industry, Great Britain.*—An experiment proposed by Sir Christopher Furness, M.P., as a means of securing industrial peace in the shipbuilding industry of the north-east coast of England, by means of a scheme of industrial co-partnership, attracted wide attention throughout the industrial and economic world in the closing months of 1908. A special article setting forth the details of the proposal and of the action taken by the parties interested was published in the *Labour Gazette* for December, 1908.

7. *Co-operative Fruit Growers' Associations.*—A list of these associations, in operation in Canada during 1908, supplied by courtesy of the Chief of the Fruit Division of the Department of Agriculture, Canada, with the name in each case of the manager or secretary, was published in the *Labour Gazette* for January, 1909.

8. *Glace Bay, N.S., Co-operative Society, Limited.*—A review of the by-laws of this society which now records a total of about $120,000 sales per year, was published in the *Labour Gazette* for January, 1909.

9. *Co-operative Congress at Hamilton, Ont.*—During the month of February, 1909, a circular communication was sent out under the auspices of the Hamilton, Guelph and Brantford co-operative associations, convening the first congress of co-operative societies to be held in Canada. The purpose of the congress was to discuss the feasibility of establishing a co-operative union in Canada similar in scope and functions to the British union. The circular was reprinted in full in the March, 1909, issue of the *Labour Gazette.*

10. *The New Westminster Co-operative Association, Limited.*—This association, incorporated in June, 1908, reported a membership of 178 in February, 1909. A review of the by-laws was published in the *Labour Gazette* for March, 1909.

11. *The Union Co-operative Association of Rossland, B.C.*—This association opened a store on May 10, 1908, with a paid-up capital of $3,000. By the end of the year the capital had increased to $7,000, and the turn-over in December amounted to nearly $6,000. A detailed report of the progress of the association was printed in the *Labour Gazette* for March, 1909.

(j) Other Special Articles.

The following is an enumeration of the subjects in addition to those above mentioned which were dealt with under special headings in the *Labour Gazette* during the past year:—

1. *Legislation in Canada by the Dominion Parliament and by the Legislatures of the several Provinces during 1908, affecting Industrial and Labour Conditions.*

(A) *Dominion Legislation.*—The 1907-08 session of the parliament of Canada was the longest on record. Among the more important acts enacted were the following:—An Act establishing a system of government old age annuities; an Act placing the Dominion Civil Service under the administration of a commission; an Act to restrain the use of tobacco by young persons; a juvenile delinquents' act; an Act to re-define the liability of railway employees for negligence; Acts amending the Canada Shipping Act and relating to steamboat inspection and the examining and licensing of engineers; a revision of the legislation affecting the payment of bounties; two Acts with reference to the grading and inspection of agricultural products; legislation for the facilitation of western grain shipments; an Act for the encouragement of the tobacco industry; a consolidation of the Public Lands' Act; an amendment to the Meat and Canned Foods' Act of 1907; an Act to prohibit the importation, manufacture and sale of opium; Acts enlarging the powers of the railway commissioners and bringing telegraphs and telephones under their jurisdiction; an Act making the Chinese Immigration Act more stringent; and Revotes for subsidies to 72 projected railway lines. The above and other legislation of the session was reviewed in some detail in an article published in the September, 1908, issue of the *Labour Gazette.* The more important bills affecting labour which were introduced and which did not receive the Royal assent were also briefly noted.

(B) *Nova Scotia Legislation.*—Among the more important acts passed by the Nova Scotia legislature during 1908 were: an Act incorporating the Nova Scotia Colliery Workers' Provident Society and creating an old age pension board, and an Act amending the statutes having reference to miners' relief societies. The appointment was authorized by special statute of a commission of three to report upon the economic effect of an eight hour day. Legislation amending the Coal Mines' Regulation Act, and having reference to technical education and forest protection was also passed. A review of the above was published in the *Labour Gazette* for July, 1908.

(C) *New Brunswick Legislation.*—Among the 88 statutes passed by the New Brunswick legislature in 1908 the most widely discussed was the Workmen's Compensation for Injuries' Act. Acts relating to compulsory school attendance and having a bearing on immigration, lumbering and dairying were also passed. These measures were reviewed in the *Labour Gazette* for October, 1908.

(D) *Quebec Legislation.*—A review of Quebec legislation during 1908 was published in the *Labour Gazette* for October, 1908. The legislation dealt with in the review was as follows:—An Act relating to the inspection of scaffolding; an Act enlarging the scope of the Public Buildings' Inspection Act and relating to the employment of female labour in shops; an Act relating to prison labour; an amendment of the License Act for the protection of wage earners; an Act respecting co-operative agricultural associations; and various amendments to the Public Lands' Act.

(E) *Ontario Legislation.*—The most important acts of the year from the standpoint of industry and labour were amendments to the Shops' and Factories' Regulations Acts whereby the law with respect to child labour was made more stringent. The most extensive single Act of the session was an amendment and consolidation of the Mines' Act. Some important legislation with reference to the lumber industry was passed, as well as some further legislation to validate contracts made by certain municipalities with the Hydro-Electric Power Commission. An article reviewing the above was published in the *Labour Gazette* for August, 1908.

(F) *Manitoba Legislation.*—An amendment to the Mechanics' Lien Act, and an Act requiring power companies to take out licences from the government, together with an Act enabling rural municipalities to purchase seed grain, were the most important labour measures of the 1908 session of the Manitoba legislatures. They were reviewed in the *Labour Gazette* for April, 1908.

(G) *Saskatchewan Legislation.*—A Seed Grain Act was passed by the Saskatchewan legislature, and the Steam Boilers' Act was considerably amended. The most important legislation of the session, however, were the three acts providing for the establishment and operation of government and municipal telephone systems. A review of the above was published in the *Labour Gazette* for August, 1908.

(H) *Alberta Legislation.*—Acts were passed limiting the hours of labour below ground in coal mines, further limiting the employment of boys in coal mines and in other respects providing more stringent protection for employees in this industry. A Workmen's Compensation Act was passed, and the Mechanics'

Lien Act was considerably amended. The Steam Boilers' Act was also amended. A very important measure was an Act authorizing the government of Alberta to purchase, construct and operate telephone and telegraph systems in the province. An Act relating to commissions of inquiry was also passed, together with legislation relating to the purchase of seed grain. A review of this legislation was published in the *Labour Gazette* for June, 1908.

(1) *British Columbia Legislation.*—The most important Act of the session, having a direct bearing on the condition of labour, was a comprehensive Factories' Act. The Shops' Regulation Act was also amended, as was the Master and Servants' Act in the matter of deductions from wages. Other legislation of the session dealt with immigration, a "Natal" Act being passed; the protection of railway labour; the size of placer claims; and the taxation of canneries; all being reviewed in the *Labour Gazette* for April, 1908.

2. *The British Welcome League of Toronto.*—The first annual report of the British Welcome League of Toronto was made the subject of a special reference in the April, 1908, issue of the *Gazette.*

3. *The Women's Welcome Hostel of Toronto.*—In May, 1903, at a meeting of the National Council of Women, held in Toronto, Ont., it was decided to form an immigration committee for the purpose of securing lodgings and obtaining situations for women and girls coming as domestic servants to this country. It was decided to secure a suitable house in which to receive women immigrants, a grant of $1,000 having been obtained from the legislature of Ontario. The hostel was formally inaugurated in 1906 and a description of its working methods and of the work covered up to the opening months of 1908 was published in the *Labour Gazette* for April, 1908.

4. *Bonus to employees at Merriton, Ont.*—Special reference was made in the April, 1908, *Gazette* to the action of the annual meeting of the Lincoln Paper Mills Company, Limited, of Merriton, Ont., in voting a bonus or gratuity to its employees amounting to six per cent. of their wages. This action was repeated in the following year and was recorded in the *Labour Gazette* for March, 1909. The average amount thus distributed to each employee was about $35.00.

5. *Factory Inspection in Nova Scotia.*—In February, 1908, an inspector of industrial establishments, under the Factories' Act of Nova Scotia, was appointed. A special reference to the appointment and to the nature of the duties assumed by the officer was published in the May, 1908, issue of the *Labour Gazette.*

6. *The Penny Bank of Toronto.*—A special reference to the second annual report of the bank was published in the May, 1908, *Gazette.* The third annual report was reviewed in the *Labour Gazette* for December, 1908.

7. *The Vancouver Employers' Association.*—A report of the fourth annual meeting of this association, containing a reference to its operations and strength, was published in the May, 1908, *Gazette.*

8. *Employers' Liability on Railways in the United States.*—During April, 1908, the United States Congress assented to an Act relating to employers' liability on railways. A brief outline of the provisions of the Act, its origin and general significance, was published in the *Labour Gazette* for June, 1908.

9. *Dominion Steel Workers' Mutual Benefit Society.*—A review of the second annual report of this society was published in the *Labour Gazette* for July, 1908.

10. *The Canadian Tobacco Industry.*—A special reference was published in the July, 1908, issue of the *Labour Gazette* to the action of the Canadian government in organizing a tobacco division of the Department of Agriculture in 1906 and in enlarging the same in 1908.

11. *The Teaching of Agriculture in Ontario.*—A special article dealing with the action of the Department of Agriculture, Ontario, in organizing a system of agricultural instruction for the province was published in the September, 1908, issue of the *Gazette.*

12. *The Destruction of Fernie, B.C.*—On August 1st and 2nd a disastrous forest fire swept over a portion of the Elk River Valley in East Kootenay, B.C., destroying the town of Fernie and causing the loss of 16 lives and of property estimated at a value of over $2,500,000. A special article dealing with the disaster was published in the September, 1908, issue of the *Labour Gazette.*

13. *Important Meetings of Trades and Labour Congresses, Manufacturers' Associations and other Public Bodies.*—Special reports were published of the following meetings:—The twenty-fourth annual convention of the Trades and Labour Congress of Canada, held in Halifax, N.S., in September; the sixth annual convention of the National Trades and Labour Congress, held at Quebec, Que., during September; the twenty-seventh annual convention of the Canadian Manufacturers' Association, held at Montreal during September; the thirteenth annual meeting of the Grand Council of the Provincial Workmen's Association of Nova Scotia, held at Halifax, N.S., during September; the fourth annual meeting of the Fishermen's Union of Nova Scotia, held at Halifax, N.S., during September; the fourteenth annual meeting of the Maritime Board of Trade, held at Halifax, during August; the fourth annual convention of the Federation of Textile Workers of Canada, held in Montreal during September; the forty-third annual meeting of the Trades Union Congress of Great Britain, held at Nottingham, Eng., in September; the nineteenth annual convention of the Canadian Association of Stationary Engineers, held at Windsor, Ont., during August; the third annual meeting of the Iron Moulders' Conference Board of Ontario, held at Toronto during September; the annual convention of the Union of Manitoba Municipalities, held at Brandon, Man.; the third annual convention of the National Civic Federation of the United States, held in New York during December; the twenty-second annual convention of the International Association of Factory Inspectors, held at Toronto, in June 1908; the eleventh annual meeting of the Montreal Builder's Exchange, held in Montreal in January, 1909; the annual convention of the Union of British Columbia Municipalities, held at Vernon, B.C., in January; the annual meeting of the Canadian Association of Masters and Mates, held at Toronto in February, 1909; the seventh annual convention of District No. 18 of the United Mine Workers of America, held at Lethbridge, Alta., in February, 1909; and a special meeting of the Canadian Forestry Association, held at Toronto, in February, 1909.

Each of the above meetings was reported in some detail, copies of the various resolutions of the more important bodies being quoted. In addition, special reports of interviews of the Trades and Labour Congress of Canada and of the National Trades and Labour Congress of Canada with the Dominion government in January, 1909, and April, 1908, respectively, were published in the issues of the *Labour Gazette* for the following months. A report of an important interview of the British Columbia Executive of the Trades and Labour Congress of Canada with the Provincial Government was published in the *Labour Gazette* for March, 1909.

14. *Payment of Fair Wages.*—The City Council of Winnipeg during October revised the Fair Wages' clauses inserted in civic contracts. A special statement showing the nature of the modifications introduced was published in the *Labour Gazette* for November, 1908. In Great Britain, a special committee was appointed in 1907 to consider the working of the fair wages resolution of the British House of Commons, which dates from February, 1891. The report of this committee, issued in 1908, contained a number of important recommendations for the improvement of the methods of carrying out the terms of the resolution. In a special article published in the February, 1909, *Gazette*, the alleged defects of the present system as noted in the report, were set forth, together with the recommendations of the committee.

15. *The Cement Industry in Canada.*—A review of an article dealing with the cement industry in Canada, published in the *Monetary Times* of Toronto, was printed in the *Labour Gazette* for December, 1908.

16. *Unemployment in Great Britain.*—During the autumn of 1908 unemployment reached great proportions in Great Britain and special action was taken by the government looking to the alleviation of the situation. An article setting forth the action of the government and giving an outline of the general situation appeared in the *Labour Gazette* for December, 1908.

17. *Public Telephones in Saskatchewan.*—Extracts from a speech delivered by the Premier of the Province of Saskatchewan, outlining the policy of the government of that province with regard to public telephones, were printed in the December, 1908, issue of the *Labour Gazette.*

18. *The Canadian Brotherhood of Railway Employees.*—At a meeting, held at Moncton, N.B., during November, 1908, delegates from the various local unions of the International Brotherhood of Railway Employees throughout the Maritime Provinces and Quebec decided to sever their affiliation with that Order and to form a purely Canadian brotherhood of railway employees with headquarters at Halifax, N.S. A report of the meeting and of the resultant action appeared in the December, 1908, issue of the *Labour Gazette.*

19. *The National Federation of Women.*—In January, 1907, the National Federation of Women was founded at Montreal, Que. By May of the same year it had grown to 473 members. At the close of the year it was composed of nearly 800 members. An article descriptive of its objects and operations was published in the *Labour Gazette* for January, 1909.

20. *The Movement for Cheaper Cablegrams.*—At the annual meeting of the Royal Colonial Institute, held in London, Eng., during 1908, the laying of a state-owned cable between Great Britain and Canada was advocated by the Honorable Rodolphe Lemieux, Postmaster-General for Canada. A brief description of the proposal of the Minister and of the objects such a cable might be expected to serve was published in the *Labour Gazette* for January, 1909.

21. *The International Harvester Company Employees' Benefit Association and Pension System.*—An employees' benefit association and a pension system were introduced among the employees of the International Harvest Company, both in the United States and Canada, on September 1, 1908. The *Labour Gazette* for January, 1909, gave a detailed description of both arrangements.

22. *Forestry in the University of New Brunswick.*—The University of New Brunswick began in 1908 a course in forestry to parallel courses previously established in civil and electrical engineering. A description of the course appeared in the *Labour Gazette* for January, 1909.

23. *Western Ontario Creameries and Cheese Factories.*—Statistics embodied in an address by the Chief Government Inspector for Western Ontario before a meeting of creamery and cheese factory proprietors of Western Ontario, held at Guelph, Ont., in December, were reprinted in the *Labour Gazette* for January, 1909.

24. *Coal Oil Investigation by the Manitoba Government.*—Owing to the occurrence in Manitoba of a number of deaths by the use of coal oil in starting fires, a searching investigation into the circumstances attending some of the deaths was undertaken by the Attorney-General of that province. A description of the method of the inquiry and the verdict of the coroner's jury in a test case were published in the *Labour Gazette* for January, 1909.

25. *The Draeger Rescue and Fire Fighting Apparatus.*—During 1908 the installation was completed at Glace Bay, N.S., by the Dominion Coal Company, of the first central "rescue" station equipped with oxygen-breathing fire fighting apparatus to be established on the North American continent. The object of the station is to provide the most efficient means known to modern science of combatting fires in coal mines. The Department obtained from Mr. W. F. Gray, of the Dominion Coal Company a special statement with respect to the establishment of the Glace Bay station. This was published in full in the *Labour Gazette* for January, 1909, together with a report of a fire which occurred at Sydney No. 1 mine on September 9, and which afforded an excellent demonstration of the usefulness of the apparatus.

26. *Prevention of Foot and Mouth Disease.*—In the month of November, 1908, an outbreak of foot and mouth disease in the United States considerably reduced the export of cattle industry of Canada. As soon as the presence of the disease became known, action was taken by the Canadian government to prevent infection in Canada. A descriptive article on the subject appeared in the January, 1909, issue of the *Labour Gazette.*

27. *The Canada Iron Corporation.*—A brief notice of the formation of this corporation was published in the *Labour Gazette* for January, 1909.

28. *The Smoke Nuisance.*—The text of an order issued by the Board of Railway Commissioners with reference to the abatement of the smoke nuisance in connection with the operation of locomotives in Ontario was published in the January, 1909, issue of the *Labour Gazette.*

29. *Municipal Power Development at Winnipeg, Man.*—An outline of the plans of the city of Winnipeg in connection with the development of hydraulic power on the Winnipeg River was given in the *Labour Gazette* for January, 1909.

30. *The Canning Industry of Ontario.*—A list of the canning companies operated in Ontario in 1908, furnished to the Department by the Chief Factories' Inspector of the province, was published in the *Labour Gazette* for January, 1909.

31. *Protection of Construction Employees on the Transcontinental Railway.*—With the intention of educating the workmen employed in connection with the construction of the National Transcontinental Railway as to the danger involved in the handling of explosives and care that is necessary in order to minimize such risks, a circular was sent out by the Chief Engineer of the Commissioners to the various contractors and sub-contractors engaged in the construction of the road. The contractors were urgently requested to give as much publicity as possible to the circular among the men in their employment engaged in the handling of explosives. A copy of the circular was published in the January, 1909, issue of the *Labour Gazette.*

32. *Protection of Railway Employees.*—An important order looking to the protection of railway hands, issued by the Board of Railway Commissioners for Canada in December, 1908, was reprinted in the *Labour Gazette* for January, 1909.

33. *The People's Bank of Levis, Que.*—The eighth annual report of this concern was reviewed in the *Labour Gazette* for February, 1909.

34. *Statistics re Intercolonial Railway Employees.*—Some statistics furnished to the House of Commons by the Honourable the Minister of Railways and Canals, *re* the number of employees and amount of pay-roll on the Intercolonial and Prince Edward Island Railway Systems, during 1908, were published in the *Labour Gazette* for March, 1909.

35. *The Minimum Wages' Act of New South Wales.*—A law was passed in New South Wales defining the minimum wages to be paid to employees in certain industries. The Act came into force on January 1, 1909, and an outline of its provisions was published in the March, 1909, *Gazette.*

36. *The Peat Fuel Industry in Canada.*—Extracts from a memorandum prepared by the Superintendent of Mines, and presented to the House of Commons by the Honourable the Minister of Public Works, giving information with respect to the peat fuel industry in Canada and its possibilities, were published in the *Labour Gazette* for March, 1909.

37. *Technical Education in Ontario through Public Libraries.*—The Education Department of Ontario established early in 1909 a system of travelling libraries with the object of promoting technical instruction among mechanics and

artisans through the medium of the public libraries of the province. Full details of the arrangement were published in the *Labour Gazette* for March, 1909.

38. *The Department of Industries and Immigration of Nova Scotia.*—A brief description of the work of this Department, which was originally organized in October, 1907, was published in the *Labour Gazette* for March, 1909.

39. *Conservation of the Natural Resources of the Continent.*—Under date of February 1st, 1909, three commissioners were appointed, namely, Hon. Sydney Fisher, Minister of Agriculture; Hon. Clifford Sifton, and Mr. Henri S. Beland, M.D., M.P., of St. Joseph de Beauce, Que, to represent the government of Canada at a conference summoned by the President of the United States to meet at Washington, D.C., with a view to the preservation of the natural resources of this continent. The conference held sessions on February 18th and 19th. A review of the recommendations passed was published in the *Labour Gazette* for March, 1909.

40. *Public Ownership of Interior Elevators.*—In the *Labour Gazette* for March, March. 1909, a joint reply of the premiers of Alberta, Saskatchewan and Manitoba to representations made by the Interprovincial Council of Western Grain Growers' Associations in favour of a system of government ownership and operation of interior elevators was published. The pronouncement of the premiers was made after a number of conferences had been held with representatives of the grain growers.

41. *The Cobalt Mining Camp.*—Statistics showing the estimated output of this camp for 1908 were published in the *Labour Gazette* for March, 1909.

42. *Factory established by Trades and Labour Council of London, Ont.*—In order to furnish work to some portion of the unemployed union men of the city of London, Ont., the Trades and Labour Council opened a factory during the winter of 1908-09 for the manufacture of toys and other small articles out of waste material. A description of the scheme, together with a copy of the rules of the factory, was published in the March, 1909, issue of the *Labour Gazette.*

43. *Combines in Restraint of Trade.*—The text of a memorandum presented by a deputation to the Honourable the Minister of Finance and the Honourable the Minister of Trade and Commerce with a view to invoking the aid of the government in the control of combines was printed in the *Gazette* for March, 1909.

44. *Level Crossings.*—The text of certain general regulations with reference to level crossings as amended by the Board of Railway Commissioners in January, 1909, was published in the *Labour Gazette* for March, 1909.

45. *A special meeting* of the Grand Council of the *Provincial Workmen's Association,* held at Sydney, N.S., in February, 1909, was reported under a separate heading in the *Labour Gazette* for March, 1909.

46. *Steel Production in Nova Scotia.*—Statistics showing the production of iron and steel in Nova Scotia during 1908 were published in the February, 1909, issue of the *Labour Gazette.*

47. *The Wool Clip of Canada.*—Statistics collected by the live-stock branch of the Department of Agriculture, Canada, were quoted under a separate heading in the *Labour Gazette* for February, 1909.

48. *Labour Arbitration in Great Britain.*—In September, 1904, a new Court of Arbitration was constituted by the Labour Department of the Board of Trade of Great Britain with a view to increasing the useful influence which the Department has been able to exercise as a peace-maker in industrial disputes. A memorandum issued by the President of the Board of Trade, in which full details of the proposal were set forth, was republished in the *Labour Gazette* for October, 1908. In connection with the general scheme, regulations with regard to procedure to be followed in the appointment of courts of arbitration were drawn up by the British Board of Trade. These were also reprinted in full in the *Labour Gazette* for February, 1909.

49. *Progress on the National Transcontinental Railway.*—A return showing the progress made in connection with the laying and finishing of tracks up to the month of April, 1908, was presented to the House of Commons by the Honourable the Minister of Railways and Canals on April 18. In view of the importance attaching from the standpoint of industry and labour to the completion of this railway the statement was republished in the *Labour Gazette* for May, 1908.

50. In the January, 1909, issue of the *Labour Gazette* the usual annual review of industrial and labour conditions in Canada during the previous calendar year was published. The article contained concise and comprehensive statements under the following headings: General summary; immigration and colonization; wages and hours of labour; prices and cost of living; interruptions to industry; conditions in the following industries and trades: agriculture, fishing, lumbering, mining, manufacturing, railway construction, general transport, building, metal, woodworking, printing, clothing, leather, food and tobacco and unskilled labour; Canadian trade and revenue; labour legislation, proceedings of labour organizations, employers' associations, etc., notes. In the February, 1909, issue of the *Gazette* an excerpt was given from a similar article published in the British Board of Trade *Labour Gazette* on conditions of employment, wages, trade disputes, prices, etc., in Great Britain during the preceding calendar year.

51. *Food Prices in the Eastern Townships, Quebec.*—A schedule of food prices in the Eastern Township section of the Province of Quebec, prepared by the *Labour Gazette* for Sherbrooke, Que., and district, was published in the *Gazette* for February, 1909.

52. *Intercolonial and Prince Edward Island Railway Employees' Provident Fund.*—The main features of the first annual report relating to the operations of this fund were published in the *Labour Gazette* for October, 1908.

53. *First Aid to the Injured.*—The *Labour Gazette* for July, 1908, contained a descriptive article dealing with a system recently introduced by the Montreal Rolling Mills Company for the purpose of rendering first aid to workmen injured in its employ. The article was contributed by the Works' Assistant of the General Manager of the Company.

Special Reviews.

Several publications received at the Department were reviewed in special articles as being of particular interest to industry and labour. The following list of publications was reviewed in this way:—

1 Reports of Mr. W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, as Commissioner to enquire into the losses and damages sustained by the Chinese and Japanese population of the city of Vancouver, B.C., on the occasion of riots in that city during the month of September, 1907. The reports in each case set forth the proceedings of the Commissioner, the method followed in estimating the claims, the amount of the claims, and the extent of the damage. Correspondence between the Commissioner and representatives of the Chinese and Japanese governments was included in the reports.

2. An important work on British Columbia by Professor Albert Metin was specially reviewed in the *Labour Gazette* for May, 1908.

3. A review of a number of recent reports and maps of economic interest, issued by the Geological Survey of Canada in 1907-08 was published in the *Labour Gazette* for August, 1908.

4. A publication dealing with the mineral resources of Canada, issued by the *Canadian Mining Journal* to celebrate the visit of certain British and Continental mining engineers to Canada, was specially reviewed in the *Labour Gazette* for September, 1908. An important volume issued by the Department of Mines, Canada, on the mining and metallurgical industries of the Dominion, was also specially reviewed in the March, 1909, issue of the *Labour Gazette*.

5. A booklet issued to the public under the authority of the Right Honourable the Minister of Trade and Commerce, drawing attention to the provisions of the Government Annuities' Act, was reviewed in the *Labour Gazette* for December, 1908.

6. A paper written by the Comptroller of Railway Statistics of the Department of Railways and Canals, Canada, dealing with electric railway statistics, was reviewed in the *Labour Gazette* for December.

7. The leading features of the eighth annual report of the Department of Labour, Canada, were noted in a special article in the February, 1909, issue of the *Labour Gazette*.

8. The report of the Secretary of Commerce and Labour of the United States for 1908, dealing with immigration and naturalization, industrial conditions, manufactures, navigation, labour legislation, etc., was reviewed in the *Labour Gazette* for March, 1909.

9. A report of a British Royal Commission dealing with the subject of state afforestation was published in the March, 1909, issue of the *Labour Gazette*.

10. Statistics relating to farm land valuation and wages in Canada were quoted in the *Labour Gazette* for February, 1909.

11. In view of the number of fatalities which have recently resulted in connection with the handling of explosives, a notice issued in 1908 by the Cobalt Lake Mining Company to its employees was specially reviewed in the February, 1909, issue of the *Labour Gazette.*

12. A special review of the annual report of the coal mines branch of the Department of Public Works, Alberta, for 1907, was published in the *Labour Gazette* for October, 1908.

(3) STATISTICAL AND OTHER PERIODICALS RETURNS AND STATEMENTS.

(a) Changes in Rates of Wages and Hours of Labour, 1908.

The Department continued during the past year its arrangements for securing the publication of a detailed statistical record of current changes in rates of wages and hours of labour throughout Canada. As above mentioned, the opening article in each issue of the *Gazette* contains a brief reference to the more important changes of the preceding month. The final statement, however, of the Department in the matter is presented in the form of a series of quarterly articles dealing with changes during the first, second, third and fourth quarters of the year, respectively. The leading feature of these quarterly articles is a tabular statement in which are set forth full details with regard to every change concerning which the Department is able to obtain information, the table showing the class and number of employees affected by the change, the locality and exact nature of the change, the extent to which weekly earnings are affected thereby and the manner in which the change was brought about. Accompanying this statement an analysis is made of the aggregate effect of the changes in the several industries and trades, and a review presented of the outstanding features of the period covered.

It will be remembered that wages were upward in tendency during the first nine months of 1907 in a more marked degree than in any previous year since 1903. In the final quarter of 1907, however, a downward tendency prevailed, the cause being the falling-off in industrial activity resulting from the contemporary stringency in the money market. This tendency was continued throughout the winter and spring months of 1908, during which wages generally were stationary levels or were lower than at the corresponding period of the previous year. This was particularly true of the less skilled branches of employment. Railway construction contractors and other large employers of unskilled labour were able to obtain a plentiful supply of men at lower rates than in 1907, and the same conditions prevailed in almost equal degree in the lumbering and manufacturing industries. Skilled farm hands continued in demand at high rates, but the wages of inexperienced help were lower. On the other hand, a number of important increases were granted at different times in the year to railway and civic employees, and miners' wages were on the whole well maintained. In the building trades rates were firm in the larger centres, but declines were reported from the country districts. Other skilled trades, including the printing and clothing trades, reported a number of in-

creases, though cotton mill employees had their wages cut ten per cent. The chief weakness in wages' schedules was evidenced as above mentioned during the winter and spring months of the year, during which unemployment was more extensive than in many years previous in Canada.

(b) Immigration and Colonization.

The Department continued the publication during the past year of the latest statistical information available from month to month with regard to immigration and colonization. Arrangements were entered into with the Department of the Interior during 1904, whereby official returns relating to immigrant arrivals, the number of homestead entries made, the nationality of the homesteaders, and the area of Dominion lands patented, are obtained, as soon as compiled, for insertion in the *Gazette*. As supplementary to this material, returns of land sales of various railway or other companies operating in Canada are published, as further illustrating the progress of settlement in the newer parts of the Dominion. Certain statistical information issued monthly by the Board of Trade of Great Britain, with reference to emigration from the United Kingdom to British North America, is also reviewed monthly. In a series of notes appended to the article various subjects of interest in connection with immigration are referred to, as for example, the immigration operations of the Salvation Army and other agencies engaged in bringing immigrants to Canada, the proceedings of immigration and colonization societies, special circumstances or features in connection with the distribution of immigrants, etc., etc.

For several years past one of the most important features affecting economical and industrial conditions throughout Canada has been the unprecedented influx of immigrants from Great Britain and the United States. This influx reached its height in 1907, in which the total number of immigrants entering Canada was 277,376, an increase of 28 per cent. as compared with the returns for 1906. During the past calendar year a considerable falling off from this total was recorded, the returns showing a decrease of approximately 48 per cent. This was almost wholly in the number of arrivals from Great Britain and other European countries; arrivals from the United States having shown a comparatively small decline. Homestead entries showed a net increase for the year 1908 of 9,144, the number in 1908 being 38,559, and in 1907, 29,415.

For the fiscal year ended March 31 last the total number of immigrants coming to Canada was 146,908, compared with 262,469 in the preceding year, while the number of homestead entries was 39,081, compared with 30,424 in the preceding year.

The falling off in immigrant arrivals above referred to was largely the result of the restrictions on immigration imposed by the Canadian Government in the opening months of 1908 and renewed at intervals thereafter, in view of the overstocked condition of the labour market following the financial stringency of the autumn of 1907. The text of the various orders in council issued by the Government in this connection was published in the *Labour Gazette*. The *Gazette* also published in full an order in council defining the obligations

of hotel and boarding-house keepers towards immigrants, and certain regulations and instructions issued by the government during the summer months of 1908 to ensure a rigorous enforcement of the law with respect to the admission of immigrants to Canada and the prohibition of certain classes. The instructions were specially directed to the various inspectors of the Government, a considerable addition in the number of which was made during 1908.

(c) Industrial Accidents.

For some years past a current record of industrial accidents has been kept by the Department. The record includes all accidents known to have been sustained throughout the Dominion by workmen in the course of their employment, and resulting in the loss of life or limb or other serious impairment of their industrial efficiency. A descriptive article based on this record is published monthly in the *Labour Gazette*, an analysis being given of the accidents of the previous month, classified according to the industries and trades in which the victims were engaged, with comparative returns for the preceding month and the corresponding month of the preceding year. A statement as to the ages of the victims is also given in so far as information is available. With the article is given a table of the fatal accidents of the month, classified according to industries and trades, and with details relating to the locality, the date and the cause or nature of each accident. Disasters involving the loss of more than one life are briefly described under separate headings. The record is based on information received from the correspondents to the *Labour Gazette*, from provincial inspectors of factories and mines, from the secretary of the Ontario Railway and Municipal Board, and from other authorities. The clipping bureau of the Department is also extensively utilized as indicating sources from which detailed and authentic information may be obtained.

An exhaustive analysis of the departmental record of industrial accidents, both fatal and non-fatal, during 1908, is published as a separate chapter of the present volume.

(d) Trade Disputes.

A monthly article dealing in detail with strikes and lock-outs throughout the Dominion was continued in the *Labour Gazette* during the past year, the form and scope being unchanged from previous years. The leading feature of the article is a statistical table embodying in the case of each labour dispute full details with regard to the number of employees affected, the locality, cause, duration, and result of the dispute. The disputes are classified according to the industries or trades in which they occur, and are further grouped in the table according as they begin during the month under review or prior to the beginning of that month. Accompanying the table is a brief description of each dispute. In order to show at a glance the full significance of the detailed tabular statement a series of brief statistical statements are presented in which the disputes are analysed according to trades, provinces, causes, methods of settlement and results, together with an estimate of the approximate number of workmen affected and the aggregate loss occasioned in working days.

An analysis and review of the trade disputes occurring during the calendar year 1908 was published in the January, 1909, issue of the *Labour Gazette*. It was shown that there had been a very large decrease in the number of trade disputes occurring in Canada during 1908, compared with any of the seven preceding years of which the Department has a record. The total number of disputes in 1908 was 69, whereas the number in 1907 was 149, and in 1906, 138, the next lowest being in 1905, when 87 disputes occurred. Owing, however, to two strikes involving a large number of employees, namely, a strike of machinists and carmen on the Canadian Pacific Railway system and a strike of cotton mill hands in the province of Quebec, the decrease in the number of workpeople concerned in these disputes did not correspond with the reduction in the number of disturbances and there was actually a large increase compared with previous years in the loss of time in working days. Approximately 26,232 employees were affected by trade disputes in 1908, compared with 34,694 in 1907. The loss of time in working days was 708,194 in 1908, compared with 603,986 in 1907 and 489,775 in 1906.

(e) Recent Industrial Agreements.

Since the year 1906 the Department has published from time to time in the *Labour Gazette* the text of important agreements concluded between employers and employees in different industries and trades throughout Canada. It has been the practice to secure copies wherever possible of all formal arrangements of this character, inasmuch as the agreements in question not only contain a large body of information of a detailed character as to working methods and scales of remuneration in different branches of industry, but afford a useful and practical guide in the arrangement of other schedules and the settlements of disputes. A reference to the agreements effected under the Industrial Disputes Investigation Act, 1907, and published in the *Labour Gazette* has been made in preceding pages. In addition, the following agreements were published in the *Labour Gazette* during the fiscal year under the heading "Recent Industrial Agreements":—

1. Agreement between the Master Plumbers' and Fitters' Association of Toronto, Ont., and the Journeymen Plumbers, Gas and Steamfitters, known as Local Union No. 46.
2. Agreement between the various restaurant and hotel keepers and the local Hotel and Restaurant Employees' Union of Victoria, B.C.
3. Agreement between the Halifax and Southwestern Railway Company, Nova Scotia, and its maintenance-of-way employees, effective April 1st, 1908.
4. Agreement between the Dominion Atlantic Railway Company, Nova Scotia, and its maintenance-of-way employees, effective February 1, 1908.
5. Rules and rates of pay for telegraphers in the Intercolonial and Prince Edward Island, effective April 1, 1908.
6. Agreement between the longshoremen of Prescott, Ont., and their employers, effective July 30, 1908.
7. Agreement between steamship lines and longshoremen of St. John, N.B., effective September 9, 1908.

The report of an agreement reached between the shipping companies of Montreal, Que., and the longshoremen of that port with the assistance of the Honourable Rodolphe Lemieux, then Minister of Labour, was published under a separate heading in the *Labour Gazette* for May, 1908. The agreement was based on the terms arranged for the preceding season by the aid of a Board of Conciliation and Investigation established under the Industrial Disputes Investigation Act. The article also contained the text of a letter of thanks dated May 1, 1908, addressed to the Minister by the Corresponding Secretary of the Longshoremen's Union of Montreal.

(f) Reviews of Official Reports and Blue Books.

In addition to the publications mentioned above, as having been specially reviewed in the *Gazette*, a considerable number of official reports and blue-books containing information of interest from the standpoint of industry and labour were reviewed, as in previous years, under the heading "Reports of Departments and Bureaus" which appeared in each issue of the *Labour Gazette*. A complete list of these reports, classified according to the governments by which they were issued, is given below. It will be seen that among the publications which were noticed in this way were twenty-two issued by the Dominion of Canada; twenty-three issued by the various provinces of the Dominion; thirteen issued by Great Britain; one each by Western Australia and by New Zealand; fourteen by the United States; and one by Germany and by Belgium respectively.

CANADA.

1. Census and Statistics; Bulletin V; Agricultural Census of Ontario, Quebec and the Maritime Provinces, 1907.
2. Report of the Civil Service Commission, 1908.
3. Abstract of Insurance Companies in Canada for the year ended December 31, 1907.
4. Summary report of the Mines' Branch for the fiscal year 1907-08.
5. Report of the British Columbia Fisheries' Commission, 1907; Department of Marine and Fisheries.
6. List of shipping, issued by the Department of Marine and Fisheries, for year ended December 31, 1907.
7. Census and Statistics; Bulletin VI; Immigrants of the Agricultural Class in the Northwest Provinces, 1908.
9. Report of the Superintendent of Insurance of the Dominion of Canada for year ended December 31, 1907.
10. Special Report of the Commissioner of the Yukon Territory, *re* industrial conditions, for year ended March 31, 1908.
11. Canal Statistics for the season of navigation 1907.
12. Report of the Secretary of State for Canada, *re* industrial investments for the year ended December 31, 1907.
13. Report of the Postmaster General for year ended March 31, 1908.
14. Tables of the Trade and Navigation of the Dominion of Canada, for the fiscal year ended March 31, 1908.
15. Annual report of the Department of Indian Affairs, 1908.

16. Report of the Minister of Justice as to Penitentiaries of Canada for the fiscal year, 1908.
17. Report of the Dairy and Cold Storage Commissioner, for the year ended March 31, 1908.
18. Report of the Department of Railways and Canals for fiscal year ended March 31, 1908.
19. Report of the Department of Public Works for the fiscal year ended March 31, 1908.
20. Report of the Department of Marine and Fisheries, 1907-08. Fisheries.
21. Census and Statistics; Bulletin VIII; Longevity and sanitation, 1908.
22. Report of the Inspector of British Immigrant Children and Receiving Homes for the year ended March 31, 1908.

NOVA SCOTIA.

1. Report of the Department of Mines, Nova Scotia, for the year ended September 30, 1907.
2. Annual report of the Secretary of Agriculture, Nova Scotia, 1908.
3. Report of the Subsidized Railways and other Public Works, Nova Scotia, for the year ended September 30, 1907.
4. Report of the Secretary of Industries and Immigration, Nova Scotia, 1908.

NEW BRUNSWICK.

1. Report on Agriculture for the Province of New Brunswick for the year 1907.

QUEBEC.

1. Report of the Minister of Public Works and Labour, Quebec, for the year ending June 30, 1907, *re* industrial conditions in Quebec.

ONTARIO.

1. Eighth annual report of the Bureau of Labour, Ontario, for the year ending December 31, 1907.
2. Report of the Special Committee on Prison Labour, 1908.
3. Second annual report of the Ontario Railway and Municipal Board to December 31, 1907.
4. Annual report of the Inspector of Technical Education, 1907.
5. First annual report of the Game and Fisheries of Ontario, 1907.
6. Fifteenth annual report of Neglected and Dependent Children of Ontario for 1907.
7. Fortieth annual report of the Inspector of Prisons and Public Charities upon the goals of the Province of Ontario, 1907.
8. Sixth annual report of the Temiskaming and Northern Ontario Railway Commission for the year ending December 31, 1907.
9. Twentieth report of the Inspectors of Factories for 1907.
10. Annual report of the Bureau of Industries for the Province of Ontario for 1907.
11. Seventeenth annual report of the Ontario Bureau of Mines, 1908.
12. Report relating to the registration of births, marriages and deaths in the Province of Ontario for the year ending December 31, 1906.

MANITOBA.

1. Report of the Beef Commission appointed to inquire into the purchase and sale of cattle, hogs, sheep and meat in the Provinces of Manitoba and Alberta, 1908.
2. Report of the Department of Public Works, Manitoba, for the year ending December 31, 1907.

SASKATCHEWAN.

1. Report of Mr. Francis Dagger *re* telephone service in the Province of Saskatchewan, Department of Railways, 1908.
2. Report of the Department of Public Works, Saskatchewan, for financial year ending February 29, 1908.

ALBERTA.

1. Annual report of the Department of Public Works of the Province of Alberta for 1907.

GREAT BRITAIN.

1. Report of the Secretary of State for the Home Department on the Wages Board and Industrial Conciliation and Arbitration Acts of Australia and New Zealand, 1908.
2. Report of an enquiry by the Board of Trade into working class rents, rates of wages, etc., in the principal industrial towns of Germany.
3. Report on changes in rates of wages and hours of labour in the United Kingdom, 1898-1906.
4. Return *re* unemployment in England and Wales during the year ended March 31, 1908.
5. General report of the Board of Trade upon accidents that have occurred on railways in the United Kingdom during 1907.
6. Mines and quarries: General report and statistics for 1907, Part II.
7. Annual statement of the trade of the United Kingdom with Foreign Countries and British Possessions, 1907.
8. Report on the employment of children in the United Kingdom.
9. Twelfth abstract of labour statistics of the United Kingdom for 1906-07.
10. Report of the Local Government Board for Scotland, *re* unemployment in Scotland during the year ended May 15, 1908.
11. Thirteenth annual report of the Chief Registrar of Friendly Societies for the year 1907.
12. Report from the Select Committee of Home Work together with the proceedings of the Committee, 1908.
13. Report on the administration of Labour Laws in the United Kingdom, 1906.

WESTERN AUSTRALIA.

1. Report by the Superintendent of the Labour Bureau of Western Australia for the year ending December 31, 1908.

NEW ZEALAND.

1. Seventeenth annual report of the Department of Labour of New Zealand for the year ended March 31, 1908.

UNITED STATES.

1. First annual report on the State Free Employment Offices of Massachusetts for the fiscal year ended November 30, 1907.
2. Twenty-first annual report of the Bureau of Industry and Labour Statistics for the State of Maine, 1907.
3. Twenty-third annual report of the Bureau of Labour and Industry of the State of Kansas for 1907.
4. First report, Bureau of Labour Statistics. Industrial Accidents in Illinois for six months ending December 31, 1907.
5. Bulletin of the Bureau of Labour, No. 77, July, 1908, Washington, D.C.
6. Seventh biennial report of the Bureau of Labour of the State of New Hampshire, 1908.
7. Twenty-second annual report of the statistics of manufactures in the State of Massachusetts, for 1907.
8. Thirteenth biennial report of the Bureau of Labour and Industrial Statistics of Wisconsin. Part III, Industrial Hygiene and the Police Power.
9. Annual report of the Commissioner of Corporation to the Secretary of Commerce and Labour for the year ended June 30, 1908.
10. Twelfth biennial report of the Bureau of Statistics of the State of Indiana for 1907 and 1908.
11. Eleventh annual report of the Bureau of Labour and Industrial Statistics for the State of Virginia for 1908.
12. Thirteenth annual report of the Bureau of Labour Statistics for the State of Iowa for the biennial period, 1906-07.
13. Twenty-fourth annual report of the Bureau of Labour and Industry of the State of Kansas for 1908.
14. Twenty-fourth annual report of the Department of Inspection of Workshops, Factories and Public Buildings of Ohio for 1907.

GERMANY.

1. Report of the Imperial Statistical Bureau of Germany, 1890, on the Bureaus of Labour Statistics in the principal countries of the world.

BELGIUM.

1. Rates of wages and hours of labour in the metal trades in Belgium, 1903. Department of Industry and Labour.

Other reports to the number of 136 were received by the Department during the year and were noted in the *Labour Gazette* though not reviewed at length.

(g) Legal Decisions Affecting Labour.

Ever since the establishment of the *Labour Gazette* in 1900, a separate department of the journal has been devoted to the recording of current legal decisions affecting labour. In the issues which appeared during the fiscal year 1908-09, there were, altogether, 204 legal decisions recorded in this way, a statement being given in each case of the more important points at issue, the nature and effect of the decision, the court in which the case was tried, the time and place of the decision, and the name of the presiding judge and of the plaintiff and defendant. Included among the cases cited were a number which came before British or United States courts but which were of interest on account of the principles involved to the industrial public of Canada.

Among the more important decisions of which a detailed report appeared in the *Labour Gazette* were the following: In September, 1907, His Honour Judge Choquette rendered an important decision in the Court of Special Sessions at Montreal, in the matter of a prosecution instituted under the Alien Labour Act against the Dominion Car and Foundry Company. The company was charged with having brought labourers to Canada in contravention of the Act, and in defence pleaded that its establishment was a new industry and that the skilled labour for it could not be obtained in Canada. The judgment of the court was in favour of the defence. Settlement was also made during the year by the Judicial Committee of the Privy Council, and subsequently by negotiations between the parties, of the long-standing controversy between the Sheet Metal Workers' Union of Toronto and the Metallic Roofing Company, the decision of the committee being in favour of the men. In connection with the dispute within the ranks of the Provincial Workmen's Association of Nova Scotia on the subject of the affiliation of branches of the association with the United Mine Workers of America, several suits were instituted which were duly reported in the Gazette. Another very important decision of the year was that of Mr. Justice Mather, of Winnipeg, in an action brought by the Master Plumbers of that city against the members of the local Journeymen Plumbers, Gas and Steam Fitters' Unions, for damages caused by the defendants in preventing the plaintiffs from getting men to work for them, in preventing other men from entering the plaintiff's employment, and inducing men in the employment of the plaintiffs to leave the same. The judge awarded damages to the extent of $2,000 and costs. In the same city the fair wages clauses endorsed by the municipal authorities were declared in the High Court of Manitoba on November 6 to be illegal. Other important decisions of the year included that of the Privy Council in connection with the case of the Dominion Coal Company vs. the Dominion Iron and Steel Company and that of the same tribunal enforcing a second-class fare of two cents per mile between Toronto and Montreal on the Grand Trunk Railway system. In British Columbia the validity of the "Natal" Act was subjected to legal test and the measure was declared *ultra vires*.

Among the British cases reported in the *Gazette* the most important was that of Osborne vs. the Amalgamated Society of Railway Servants. The point

involved was the extent to which the funds of trade unions may be used for political purposes; it may be stated that since the Taff-Vale case no other decision of equal importance has been given as affecting the position of trade union funds before the law in England.

In the United States the sentencing of the president, vice-president and secretary of the American Federation of Labour to imprisonment for contempt of court, a sentence against which appeal was entered, was of great interest to labour in Canada, and a full statement of the issues involved was published in the *Labour Gazette* for January, 1909.

Among other subjects dealt with in the legal decisions reported in the *Labour Gazette* mention may be made of the following:—Employers' liability and workmen's compensation for injuries; violations of the Alien Labour Act; the protection of wages; the liability of directors of companies for wages; the responsibility of railway employees; violations of the Lord's Day Act; violations of the Scott Act by employees; the defamation of employees' character by employers; rights of strikers; observance of fair wages clauses; the legality of picketing; violation of the factories' acts; frauds of employment agencies; improper marking of fruit; contributory negligence; liability of trade unions; wrongful dismissal; rights of apprentices; combines in restraint of trade, enforcement of mechanics' liens; the application of Master and Servants' Acts; desertion of employment, etc., etc.

(h) Fair Wages Schedules in Government Contracts.

The *Labour Gazette* contained each month copies of the fair wage schedules prepared by the officers of the Department and inserted in contracts by the different departments of the Dominion government during the month preceding the date of the issue. Altogether 134 schedules of wages were published in this way during the year. Apart from its immediate significance, the information set forth in these tables as to the rates of wages prevailing in the building trades and other occupations in different parts of the Dominion was of general interest.

II.—THE INDUSTRIAL DISPUTES INVESTIGATION ACT.

The measure to the consideration of which the present chapter is devoted became law on March 22, 1907, so that to the close of the fiscal year ended March 31, 1909, the Act had been in practical operation for two years, and it is possible to place some estimate on its value as a factor in the adjustment of industrial disputes.

Until human nature has advanced several steps further towards that enlightenment which alone will afford complete harmony it is to be feared that, whether in the relations between man and man or as between nation and nation, absolute peace will be long in coming. Canada cannot hope to rise above the level of humanity. Meanwhile, every agency having as its object the lessening of strife in any form, and the adoption of practical methods to that end must surely be regarded as a definite step in advance. From this point of view it is believed the Industrial Disputes Investigation Act, 1907, viewed either as to its object and the machinery by which it is sought to attain that object, or as to its actual achievements during the two years of its life, will be generally accepted as a contribution of great and permanent value, and as a factor of the highest importance in the promotion of industrial peace.

The Act is practical because it does not seek to deprive men of the right to strike, or the employer of the right to lock out, under all conceivable circumstances. It is recognized that in the ultimate resort and at the present stage of human development there may, to those concerned, sometimes appear no other way out. The Act has, therefore, declared that in certain industries there can be lawfully no strike or lockout until after the dispute has been referred under the Act to a Board of Conciliation and Investigation established to adjust the same. If the attempt to effect an adjustment succeeds the strike or lockout is averted, if not, and it is so desired by the parties, the ancient method of appeal to strike or lockout is still available. It is true that some communities, Australia and New Zealand notably, have declared strikes illegal under any circumstances, but as the record shows, such laws have not prevented strikes, though concurrent legislation in these countries looking to the settlement of disputes by conciliation has combined with the measures of prohibition in greatly lessening their number.

TWENTIETH CENTURY PROGRESS.

We move quickly in these days, however, and it may be possible that sooner than many have expected the strike may be abandoned as a weapon, for the reason that those who have felt compelled to use it have found less clumsy and primitive methods to rectify their grevances. Arbitration, conciliation, co-operation, profit-sharing are all making in the same direction and will aid each other in the advance to the goal sought universally. Lord Morley

has observed: "People seldom realize the enormous period of time which each change in men's ideas requires for its full accomplishment." The English statesman and scholar was referring at the time to events that had happened rather than to those that might happen, and he was urging that we should correct our impatience at what may seem to be slow progress of the present by looking back at the past. But Lord Morley wrote his essay on "Compromise," from which the sentence is taken, a generation ago, and since then a lightning press has encircled the world, and nations at opposite ends of the earth are exchanging thoughts with a degree of swiftness and intelligence that does not yet cease to amaze and impress those who reflect upon it. The problem, too, on which the leaders of the race in all lands are now concentrating their thoughts with an intensity of purpose never known to be equalled is that of the general betterment of the working classes, with which is of necessity inextricably interwoven the question of industrial peace. It is possible, therefore, that the speed with which great movements have progressed and vast social reforms have been accomplished in the past may be no criterion of what the future will witness. It is at least a moment of great transition, and though the future cannot be forecast, yet history will doubtless repeat itself in this, that the reality will far surpass the dreams of the imagination.

RECORD OF THE ACT.

If we turn to the actual record of the Act under discussion it is found that during the two years of its existence there have been fifty-five disputes referred under its provisions, thirty in the fiscal year 1907-08 and twenty-five in the fiscal year 1908-09, in each of which it was declared under oath that a strike or lockout would occur unless a settlement was effected as a result of this reference. As a result of these, fifty-five references, forty-nine Boards of Conciliation and Investigation were established. In the six remaining cases settlements were effected either during the formation of the Board or during the discussion arising out of the application and in any case as a direct result, it may be confidently stated, of the influence of the Act. In two cases only of the fifty-five referred, one in each of the two years concerned, did the threatened strike or lockout actually occur after an inquiry had been made. To these exceptions reference will be made later.

A CONTRACT AND A LESSON.

It is fairly well understood by this time that this Act refers in the first place only to public utility industries and to mines. It is disputes in these industries which chiefly menace the public weal and may bring inconvenience, disaster and distress if long continued, not only or perhaps not even mainly on those directly concerned in the struggle, but on whole communities. An object lesson was to be found shortly after the close of the fiscal year in the street railway strike in Philadelphia. Here is a city covering an area so vast that transit by street railway is practically a necessity of life and when a sudden cessation of traffic means unfailing and immediate loss and suffering

to scores of thousands. The company endeavoured to run a number of cars in spite of the strike with the result that disorder and riot occurred. There were ten days of turmoil and excitement, police and soldiers were on day and night duty. Numerous street battles were fought, in the chief of which a hundred people were wounded. It was real civil war on a small scale. Then the two parties began to see what each other wanted. saner methods prevailed, and the strike was settled.

At the very time the street railway employees and their sympathizers were fighting the police and the soldiers in the streets of Philadelphia, the street railway men of Winnipeg were engaged in a struggle with the Electric Railway Company of that city. The methods were, however, very different. In the Canadian city a Board was in session from day to day for a couple of weeks hearing evidence formally or informally, as its members pleased, as to all the points in controversy. In the chair was a Presbyterian Divine, more widely known in his character as a great Canadian novelist, author of "The Sky Pilot" and other famous stories. On one side of the celebrated Ralph Connor sat a gentleman prominent in the business world of Winnipeg; on the other side of the chairman sat a well known labour leader of trained mind and moderate judgment. The two gentlemen last indicated were the nominees respectively of the Company and the employees; the Chairman was appointed by the Minister of Labour, the other members having failed within a given number of days to recommend jointly a third member, who under the Act would have been Chairman. The Board had all the powers of a Court, though its procedure was on informal lines. This organization was fairly representative of the larger number of Boards which during the last two years have played an effective part in the settlement of industrial disputes in Canada.

It was no easy task to adjust the points of difference in this particular case at Winnipeg, and if the Board had not been composed of men of tact and wisdom and patience no doubt the task would have been given up and the cars outside would have stopped running and the streets would have become the scene of disorder similar to that witnessed in Philadelphia. By persisting, the Winnipeg Board secured an agreement which was satisfactory to both the Company and employees, achieving without the loss of a dollar or the shadow of disturbance, precisely the same result as was brought about in Philadelphia after heavy financial losses and much actual bloodshed. One may be pardoned for pointing the contrast and dwelling on the advantage of the methods offered by the Canadian Act.

EXCEPTIONS TO THE RULE.

It may be urged, having in mind the two strikes above mentioned, the coal mining strike in Nova Scotia in 1907, and the C. P. R. machinists' strike in 1908, that the law does not invariably succeed. This, however, was hardly to be expected, and as has been pointed out in the introductory article to the present volume, it is only claimed for the measure that it is, as its title declares, "an act to *aid* in the prevention and settlement of strikes, etc." The cases cited are obvious exceptions to the rule and are attributable, moreover, in

part to the newness of the law. The two instances in which the Act failed to avert the threatened strike were (1) that of the 1,700 miners employed by the Cumberland Railway and Coal Company, of Springhll, N.S., and (2) that of the machinists in the employ of the Canadian Pacific Railway. In the first case, the dispute was one of a long series of differences between the company and its employees, which had, as a rule, been settled by strikes, and the principle of settlement along other lines was one of some novelty to the men. When an award was given which was favorable to the Company on one of the two points submitted and favorable to the men on the other point, it was apparently believed that by striking the point on which the Board had decided against them could still be won. Those favouring this course ignored the fact that by means of the Act they had been able to secure a very searching and thorough investigation in which the employer and the men had been face to face and had freely and informally examined each other and been examined by the Board during many days and that the decision against which they contended had been reached as the result of the most careful deliberations. That strike lasted from August 1 to October 31, when the men returned to work on precisely the terms recommended by the Board, and these terms have remained in force ever since. This strike occurred during the fiscal year 1907-08 and was fully discussed in the annual report of that year.

The second case in which the Act failed to avert a strike after its machinery had been fully and fairly invoked was that during the past fiscal year on the part of the machinists employed by the Canadian Pacific Railway Company. In this case the enquiry was of an exceptionally prolonged nature and was marked by the unusual incident of one of the parties withdrawing from the proceedings at one stage on account of a ruling of the Chairman. The incident served in a manner to illustrate the effectiveness and fairness of the spirit and method of the Act, since the Board as reconstituted by the Minister found ultimately in favour of the party which had withdrawn from the proceedings. The men concerned numbered above 8,000 and the dispute extended throughout the length and breadth of the Canadian Pacific Railway. The findings of the Board were signed by two members and a minority report was forwarded by the third member, the nominee, namely, of the employees. The findings of the Board were by no means wholly in favour of the company, the men having secured several very important points, and the company accepting the findings only under protest. The men, however, or their leaders considered the points gained insufficient. The particular points of disagreement will be found by a comparison of the reports as printed in the appendix to the present volume. A strike was accordingly declared early in the month of August. The time was undoubtedly favourable from the point of view of the men, it being almost the beginning of the harvest season, a period when practically every piece of rolling stock is needed for the transportation of grain. The management of the railway was no doubt seriously inconvenienced, but it does not appear that the public interests suffered materially at any time. On the other hand, it is represented that the men fell into considerable distress. Assistance that had been expected from different sources did not come to hand, and the

strike pay was limited. Mr. James H. McVety, "Secretary of the Strike Federation," reviewing the struggle when it had closed, said in a statement over his name in *The Voice*, a labour organ published in Winnipeg:—

"The laws of the country were not enforced, the mandates of the railway commission were disregarded, and if the government had publicly stated their intention of supporting the company very little more practical assitance could have been given.

"During the strike many efforts towards mediation were made by ministers of the government and ministers of the Gospel, boards of trade and boards of control, politicians and political aspirants, but the Company maintained their non-committal attitude and asserted their ability to handle their own affairs.

"The proximity of the election day still spurred the politicians to further activity and after a lot of parleying a chance of restoring 80 per cent. of the men to work immediately was offered by the President of the Company through the Provincial Government of Manitoba, and they agreed to stand sponsors for the fulfilment of the contract.

"Knowing the terrible conditions of the membership, 6,500 of whom had received less than $2.00 apiece during the two months of the strike, and being aware that the Company apparently had sufficient men to operate trains, the committee considered that this was the best that could be got under the circumstances, and decided to accept the terms offered in the belief that the preservation of the organizations was of great importance, and knowing that the daily increasing number of unemployed would enable the Company to carry on the fight indefinitely and result in the men being ultimately starved into submission.

"The strike was declared off and the membership are now working under the 1907 schedules, with the changes made by the report of the board."

The strike was brought to a close early in October, having existed about two months. The men returned to work as in the case of the strikers at Springhill a year earlier, on the terms laid down by the Board to which the dispute had been referred, the Company agreeing to take on as many as possible at once and to re-engage others as vacancies occurred. It was a considerable time, however, before all those who had gone on strike were back at work. Moreover, the strikers were declared by the Company to have lost their claims on the Company's pension system. When, at the beginning of April of the present year, the agreement came up again for renewal, it was, after considerable discussion continued on substantially the same lines.

These two disastrous strikes, following what appears to have been in each case a searching enquiry and an impartial deliverance and resulting in a complete acceptance of the decision that had been contested, can hardly fail to have been valuable object lessons of the futility of striking to secure more than can be obtained by fair negotiations.

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*The street railway dispute at Winnipeg referred to earlier in the present chapter did not occur until after the close of the financial year 1908-09 and is not therefore included in the list.

STRIKES AND LOCKOUTS PREVENTED BY ACT.

Against the two instances, one in the case of coal miners, the other in the case of railway machinists, in which, in the course of two years, strikes occurred in spite of the operation of the Act, may be set the following list of disputes in which during the same time after a reference under the terms, no strike occurred, viz.:—

Coal Miners	25
Metalliferous mines	4
Railway telegraphers	5
Locomotive engineers	2
Railway carmen	3
Railway machinists	1
Railway freight clerks	1
Railway firemen and engineers	2
Railway freight handlers	1
Street railways (Hamilton, Ottawa and Quebec)	3
Longshoremen (Halifax and Montreal)	2
Sailors	1
Teamsters	1
Textile workers	1
Boot and shoe workers	1
Total strikes averted	53

DETAILED STATEMENT OF OPERATIONS.

The following statement covers the operations of the Act from the date of its enactment, March 22, 1907, to March 31, 1909, representing the first two years of the life of the Statute. As between the two years included in the statement the disputes in connection with which proceedings took place were divided as follows:—From March 22, 1907, to March 31, 1908, thirty-five; from March 31, 1908, to March 31, 1909, twenty. One strike occurred in each year as set forth above, after an investigation by the Board. Between March 22, 1907, and March 31, 1909, also, six applications, in addition to these indicated above, were received which related to industries other than public utilities and in which Boards could only be established, therefore, by consent of all parties concerned. In these six cases such consent was not obtained, so that further action by the Department was not possible. Correspondence was also exchanged between the Department and those concerned in different disputes in which, however, the circumstances did not call for any formal procedure.

DEPARTMENT OF LABOUR, CANADA.
STATISTICAL TABLES, IX., A. R. No. 2.

INDUSTRIAL DISPUTES INVESTIGATION ACT, 1907.

TABLE SHOWING PROCEEDINGS UNDER ACT FROM MARCH 22, 1907, TO MARCH 31, 1909

	Applications concerning disputes in mines and public utilities. 53							Application concerning disputes in industries other than mines and public utilities. 2	Total applications under Act. 55
	Concerning mines and smelters. 30		Concerning transportation and communication. 23					Disputes referred by consent of parties concerned under sec. 63 of I. D. I. Act, 1907. 2	55
	Coal Mines.	Metalliferous Mines	Railways.	Street Railways.	Longshoremen.	Teamsters.	Sailors.		
*Strikes averted or ended.....	25	4	15	3	2	1	1	2	53
Strikes not averted or ended..	1	0	1	0	0	0	0	0	2

* On the close of the financial year results were still pending in connection with four applications, viz: (1) application made on behalf of the commercial telegraphers employed on the lines of the Michigan Central Railway Company in Canada regarding matters in dispute with the Great North Western Telegraph Company; (2) application made on behalf of employees of the Manitoba Cartage Company, Limited, of Winnipeg; (3) application made on behalf of the station and telegraph employees of the Kingston and Pembroke Railway Company; (4) application made on behalf of certain employees of the Dominion Coal Company of Glace Bay, Cape Breton.

APPLICATIONS FOR BOARDS OF CONCILIATION AND INVESTIGATION.

A.—MINES, AGENCIES OF TRANSPORTATION AND COMMUNICATION, AND OTHER PUBLIC UTILITIES.

1. Appointed by the Minister, under sec. 8, sub-sec. 1, of the I. D. I. Act, on recommendation from party concerned.
2. Appointed by the Minister, under sec. 8, sub-sec. 2, of the I. D. I. Act, in the absence of a recommendation from party concerned.
3. Appointed by the Minister, under sec. 8, sub-sec. 3, of the I. D. I. Act, on the joint recommendation of the two members first appointed.
4. Appointed by the Minister, under sec. 8, sub-sec. 4, of the I. D. I. Act, in the absence of a joint recommendation by the two members first appointed.

Mining and Smelting Industry.

1. Coal Mines.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
1907. April 8	†Cumberland Railway and Coal Company and employees.	Employer*	Springhill, N. S.	1,700	Concerning employment of non-union workmen.		1907.		On April 1, employees went on strike. It was alleged by employees that they were under impression that the mines of Nova Scotia were exempt from provisions of Act. When it was explained Act applied to all Canada, employees returned to work April 8. Difficulty amicably settled. No Board constituted.
April 9	†Canada West Coal & Coke Company and employees.	Employees	Taber, Alta.	150	Concerning hours of labour.				On April 1, employer locked out employees. Employer alleged that this was done in ignorance of provisions of Act. When informed of provisions of Act by department, mines were reopened on April 18. Subsequently an amicable settlement was effected through intervention of Mr. J. D. McNiven, Fair Wages Officer of Department. No Board constituted.

† It is important to note in connection with these disputes that the "Industrial Disputes Investigation Act" was not assented to till March 22 1907. It was some weeks later before copies of the Act were available for distribution. Its provisions in consequence were not fully known by the parties at the time these disputes occurred.

* Applications for a Board were received also from the employees, parties to this dispute.

INDUSTRIAL DISPUTES INVESTIGATION ACT—Continued.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
April 9	*Western Coal Operators Associations and employees	Employees			Concerning terms of joint agreement, including wages schedule and other conditions of employment.	Hon. Sir Wm. Mulock, K. C. M. G., [C][1] J. L. Parker, [E][1] L. P. Eckstein, [M][1]	April 22	May 29	Employees went on strike in the several mines while proceedings were pending in connection with the establishment of the Boards of Conciliation and Investigation, in consequence, it was alleged, of misunderstandings which arose through ignorance of the provisions of the Act. The Deputy Minister of Labour left for Fernie on April 19, to explain to the parties the provisions of the law. While in Fernie, the parties consented to his intervention as a conciliator under the Conciliation Act, 1900, and an agreement was effected on May 4. The Boards convened at Fernie on April 30, but adjourned proceedings pending investigations by the Deputy Minister. On May 6th the Boards re-convened to receive from the parties a formal statement that the differences had been adjusted, a further cessation of work being thereby averted. An important feature of the settlement was the establishment of a standing committee of conciliation between the employers and employees, to which future differences were to be referred.
	Canadian American Coal & Coke Co.		Frank, Alta.	250					
	Crow's Nest Pass Coal Co.		Fernie, Coal Creek, Michel, B.C.	1,800		Hon. Sir Wm. Mulock, K. C. M. G., [C][1]			
	International Coal and Coke Company		Coleman, Alta.	370		F. B. Smith, [E][1] L. P. Eckstein, [M][1]			
	West Canadian Collieries, Limited		Lille and Bellevue	250					
	Breckenridge and Lund Coal Co.		Lunbreck, Alta.	125					
	H. W. McNeil Coal Co.		Canmore, Alta.	300					
	Pacific Coal Company		Bankhead, Alta.	400					

May 8	Cumberland Railway and Coal Company and employees.....	Employees	Springhill, N.S..	1,700	Concerning payment for work in counter levels and stone in pillar work.	The Hon. Mr. Justice Graham [C][3] P. S. Archibald [E][1] R. B. Murray [M][1]	May 17	July 13	Board being unable to effect a settlement by conciliation, presented a report signed by the Chairman and Mr. Archibald. Minority report was presented by Mr. Murray. The recommendations of the Board were not accepted by the employees. The strike which was threatened prior to the application for Board on May 8, was averted for the time being but took place on August 1 continuing until October 31, when the employees returned to work on the conditions recommended in the report of the Board.
May 27	Alberta Railway and Irrigation Coal Company and employees of coal mines.	Employees	Lethbridge, Alta..	400	Concerning conditions of employment.	.....	.....	.....	Amicable settlement, including agreement as to conditions of employment and establishment of a standing committee of conciliation effected between parties while Board was in process of constitution, strike being thereby averted.
July 12	Cumberland Railway and Coal Company and employees.	Employees	Springhill, N.S..	1,700	Concerning wages and other conditions of employment.	His Honour Judge Patterson, [C][1] P. S. Archibald [E][1] R. B. Murray [M][1]	July 27	Sept. 21	Employees declared a strike on August 1 in reference to question of payment for stone in pillar work, having refused to accept the recommendations of the Board appointed May 17 to deal with this subject. In virtue of this strike, proceedings before the Board were suspended until September 9, when the Board sat for two days, and presented an interim report. The strike ended on October 31, the employees returning to work on the conditions recommended in the report of the first Board.
Sept. 16	Hosmer Mines and employees.	Employees	Hosmer, B.C.....	100	Concerning wages and other conditions of employment.	His Honour Judge Wilson [C][1] F. B. Smith [E][1] F. H. Sherman [M][1]	Sept. 30	Oct. 21	The Board presented a unanimous report, which though not formally accepted by the parties, formed the basis of an agreement subsequently reached by them and reported to the Department, a strike being thereby averted.

* Applications for a Board were received also from the employees, parties to this dispute.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
1907									
Sept. 18	Hillcrest Coal and Coke Co. Limited and employees.	Employees	Hillcrest, Alta.	70	Concerning wages and other conditions of employment.	Hon. C. W. Fisher [C][1] J. R. McDonald [E][1] F. H. Sherman [M][1]	Sept. 24	Nov. 4	The report of the Board was accompanied by a minority report by Mr. Sherman. Though neither report was formally accepted by the parties, a settlement was reached in consequence of the inquiry by the Board, and a strike thereby averted.
Nov. 5	Canada West Coal and Coke Company and employees.	Employees	Taber, Alta.	150	Concerning wages, hours, and other conditions of employment.	Hon. Mr. Justice Stuart [C][1] S. A. Jones [E][1] F. H. Sherman [M][1]	Nov. 20	Dec. 20	Differences adjusted, and agreement concluded before Board, dating from December 9, 1907, until March 31, 1909, a strike being thereby averted.
Nov. 5	Domestic Coal Co. and employees.	Employees	Taber, Alta.	50	Concerning wages, hours, and other conditions of employment.	Hon. Mr. Justice Stuart [C][1] R. Duggan [E][1] F. H. Sherman [M][1]	Nov. 20	Dec. 28	Differences adjusted, and agreement concluded before Board, dating from December 9, 1907, until March 31, 1909, a strike being thereby averted.
Nov. 5	Duggan Huntrods & Co. and employees.	Employees	Taber, Alta.	40	Concerning wages, hours, and other conditions of employment.	Hon. Mr. Justice Stuart [C][1] J. Shorthouse [E] F. H. Sherman [M][1]	Nov. 20	Dec. 28	Differences adjusted, and agreement concluded before Board, dating from December 9, 1907, until March 31, 1909, a strike being thereby averted.
Nov. 12	Strathcona Coal Co. and employees.	Employees	Edmonton, Alta.	40	Concerning wages, hours, and other conditions of employment.	G. Montgomery [C][3] F. L. Otter [E][1] F. H. Sherman [M][1]	Dec. 2	Dec. 28	Differences adjusted, and agreement concluded before Board, dating from September 23, 1907, until March 31, 1909, a strike being thereby averted.
Nov. 21	Cumberland Railway and Coal Company and employees.	Employees	Springhill, N.S.	1,700	Concerning wages and other conditions of employment.	His Honour Judge Patterson [C][4] R. B. Murray [M][1] Hiram Donkin [E][2]	Dec. 24	1908 Jan. 22	The Board presented a unanimous report, which the employees expressed a willingness, and the Company an unwillingness to accept. No further cessation of work took place.

1908							1908		
Jan. 4	Dominion Coal Co., Ltd., and members of the Provincial Workmen's Association.	Employees	Dominion, C. B.	7,000	Concerning wages and conditions of employment.	Prof. A. Shortt [C][1] J. Dix Fraser [E][1] Dr. A. Kendal (M.P.P.) [M][1]	Feb. 18	Mar. 23	Differences adjusted, and an agreement concluded before the Board, effective from March 16, 1908, to December 31, 1909, a strike being thereby averted.
Feb. 10	John Marsh, John Howells, Stevens Bros., coal mine operators, dealt with as a whole and employees.	Employers	Woodpecker, Alta.	100	Concerning wages and conditions of employment.	Hon. Mr. Justice Stuart [C][3] W. E. Bullock [E][1] F. H. Sherman [M][1]	Feb. 25	April 6	The report of the Board stated that the Act did not apply in this case, the mines having closed down for lack of orders before the investigation occurred. A wage scale was, however, recommended. The report was accompanied by a minority report, making other recommendation.
Mar. 16	Western Dominion Collieries, Limited and employees.	Employees	Taylorton, Sask.	90	Concerning wages and hours.	His Honour Judge Myers [C][1] J. O. Hannah [E][1] F. H. Sherman [M][1]	April 10	May 5	Differences adjusted and agreement concluded before Board, effective from May 1, 1908, to May 1, 1909, a strike being thereby averted.
Mar. 16	Manitoba and Saskatchewan Coal Company, Ltd., and employees.	Employees	Bienfait, Sask.	50	Concerning wages and hours.	His Honour Judge Dawson [C][1] G. C. Crowe [E][1] F. H. Sherman [M][1]	April 22	Dec. 8	The report in this case appears as represented to the Department, to have been mislaid by one of the members of the Board and unusual delay occurred thereby in its presentation. The Board disagreed in its findings, but no cessation of work was reported.
Mar. 25	Cumberland Railway and Coal Company, Ltd., and employees.	Employees	Springhill, N.S.	1,600	Concerning wages.	His Honour Judge Wallace [C][1] Hon. John Armstrong [E][2] R. B. Murray [M][1]	April 29	May 26	The report found against the claims of the men, and was accompanied by a minority report, finding generally, but not wholly, in favour of the men. The employees declared the minority report acceptable to them. No cessation of work was reported.
May 2	Standard Coal Company and employees.	Employees	Edmonton, Alta.	20	Concerning wages and conditions of labour.	His Honour Judge Taylor [C][1] F. B. Smith [E][1] F. H. Sherman [M][1]	June 19	July 22	Company had previously made an agreement individually with employees. Representative of men was willing to take agreement for what it was worth but would not enter into same on behalf of union. Board decided to leave the existing agreement intact, and this arrangement appears to have been satisfactory, a strike being thereby averted.

INDUSTRIAL DISPUTES INVESTIGATION ACT—Continued.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
1908									
May 12	Nova Scotia Steel and Coal Company and employees.	Employees	North Sydney, N. S.	1,700	Concerning wages and conditions of labour.	Prof. A. Shortt [C][3] Dr. D. Allison [E][2] J. W. Maddin [M][1]	June 19	Aug. 1	An agreement concluded before the Board on all points, and a strike thereby averted.
May 14	International Coal & Coke Co. and employees.	Employees	Westville, N.S. ..	800	Concerning wages and conditions of labour.	.....	.....	.....	No Board was established in this case, the parties having come to an amicable agreement, subsequent to forwarding the application, a strike being thereby averted.
May 15	Acadia Coal Co. and employees.	Employees	Stellarton, N.S...	800	Concerning wages and conditions of labour.	.....	.....	.....	No Board was established in this case the parties having come to an amicable agreement, subsequent to forwarding the application, a strike being thereby averted.
May 18	Port Hood and Richmond Railway Coal Co. and employees.	Employees	Port Hood, N.S..	300	Concerning wages and conditions of labour.	His Honour Judge McGillivray [C][3] Geo. S. Campbell [E][1] Jas. Macdonald [M][1]	June 8	July 2	A unanimous report was made by the Board with recommendations for a settlement of all differences, which is understood to have been accepted as a basis of working operations, a strike being thereby averted.
July 2	Maritime Coal, Railway & Power Co., Limited, and employees.	Employees	Chignecto, N.S...	200	Concerning wages and conditions of labour.	Rev. Chas. Wilson [C][3] B. Barnhill [E][1] K. B. Murray [M][1]	July 6	July 27	An agreement was effected before the Board on all the points at issue and covering the period of two years from July 31, 1908, a strike being thereby averted.
Oct. 19	Galbraith Coal Co., Ltd., and employees.	Employees	Lundbreck, Alta..	30	Concerning wages and conditions of labour.	Chas. Simister [C][3] F. B. Smith, C. E. [E][1] Jas. A. Macdonald [M][1]	Nov. 25	Dec. 14	The Board presented a unanimous report recommending a basis of settlement which was subsequently, in correspondence with the Department, accepted by both parties to the dispute, a strike being thereby averted.
1909									
March 4	Dominion Coal Co., and employees, members of U.M.W. of A.	Employees	Glace Bay, N.S..	3,000	Alleged discrimination against members of U.M.W. of A.	His Honour Judge Wallace [C][4] G. S. Campbell [E][2] Daniel McDougall [M][1]	Mar. 22	.....	Proceedings unfinished at close of financial year.

1907 Sept. 12	Canadian Consolidated Mining and Smelting Co., and employees.	Employees	Moyie, B.C.....	400	Concerning wages and hours.	His Honour Judge Wilson [C][3] J. A. Harvey [E][1] S. S. Taylor, K.C. [M][1]	Sept. 23	Dec. 28		The Board after an exhaustive inquiry into mining conditions in British Columbia, presented a unanimous report, the recommendations of which were of general application to the metal mining industry in the Province of British Columbia. A settlement based on these recommendations was effected between the Company and its employees, and a strike thereby averted. The inquiry, moreover, had the effect of influencing the settlement of other differences in the industry in other parts of the Province.
Dec. 9	McKinley - Darragh Mi'g Co., Ltd., and its employees.	Employees	Cobalt, Ont.....	120	Concerning wages.	Prof. A. Shortt [C][3] E.C. Kingswell [E][1] John A. Welch [M][1]	Dec. 21	1908 Jan. 22		A unanimous report was presented by the Board, making recommendations for the settlement of the dispute. The findings of the Board were not formally accepted by the parties, but the investigation by the Board is believed to have been beneficial to the camp as a whole, and no cessation of work was reported.
Jan. 9	Temiskaming and Hudson Bay Mining Co., Limited, and its employees.	Employees	Cobalt, Ont.....	50	Concerning wages and hours.	Prof. S. J. Maclean [C][1] M. F Pumaville [E][1] C. B. Duke [M][1]	Jan. 31	Feb. 13		A unanimous report was presented by the Board, making recommendations for the settlement of the dispute. The findings of the Board were accepted by the men, but not by the Company. No cessation of work was, however, reported.
July 20	Cobalt Central Mining Co., Limited, and employees.	Employees	Cobalt, Ont.	105	Concerning wages and hours.	Prof. S. J. Maclean [C][1] E. L. Fraleck [E][1] C. B. Duke [M][1]	Aug. 22	Aug. 29		Unanimous report presented by Board making recommendations for the settlement of the dispute, and no cessation of work was reported.

INDUSTRIAL DISPUTES INVESTIGATION ACT—Continued.

II.—Transportation and Communication.

1.—Railways.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
1907 Apr. 20	Grand Trunk Railway Company of Canada and Machinists.	Employees	Montreal, Ottawa, Toronto, Stratford, etc.	400	Concerning schedule involving wages, hours, apprenticeship, re-instatem't of former employees, etc.	Prof. A. Shortt [C][1] W. Nesbitt, K.C. [E][1] J. G. O'Donoghue [M][1]	May 4	May 21	Differences adjusted, and agreement concluded before Board for period of one year from May 1, strike being thereby averted.
June 27	Grand Trunk Railway Company of Canada and its locomotive engineers.	Employees	Montreal, Ottawa, Toronto, Stratford, etc.	1,300	Concerning schedule of wages and rules.	Prof. A. Shortt [C][1] W. Nesbitt, K.C. [E][1] J. Cardell [M][1]	July 18	Aug. 16	Differences adjusted, and agreement for three years concluded before Board, a strike being thereby averted.
July 10	Intercolonial Railway of Canada and freight handlers in its employ at Halifax, N. S.	Employer	Halifax, N. S.	250	Concerning wages and classification of employees.	Prof. W. Murray [C][3] Henry Holgate, C.E. [E][1] R. E. Finn, M.P.P. [M][1]	July 22	Aug. 12	On June 29, employees went on strike, and when informed that provisions of Act applied, both parties agreed to refer the differences under the Act, and employees returned to work. On the request of the parties proceedings were subsequently adopted under the Conciliation and Labour Act, and a settlement effected, the terms of which were made applicable to the Railway's employees at St. John, N.B., as well at Halifax, N.S., and further cessation of work was thereby averted.
Sept. 5	Canadian Pacific Railway Company and railroad telegraphers	Employees	On all lines of C. P.R. in Canada.	1,656	Concerning schedule of wages and rules of employment.	Prof. A. Shortt [C][3] W. Nesbitt, K.C. [E][1] J. G. O'Donoghue [M][1]	Sept. 16	Oct. 12	Differences adjusted, and an agreement concluded before Board, dating from October 1, a strike being thereby averted.
Nov. 19	Grand Trunk Railway Co. and railroad telegraphers.	Employer	Montreal.	300	Concerning wages and other conditions of employment.	Prof. A. Shortt [C][3] W. Nesbitt, K.C. [E][1] J. G. O'Donoghue [M][1]	Nov. 30	1908 Jan. 23	Differences adjusted, and agreement concluded before Board, dating from January 1, 1908, a strike being thereby averted.

								1907			
Nov.	22	Canadian Pacific Railway Co., and carmen employed by Company on western lines.	Employer	Western Lines.	1,215	Concerning wages and hours.	Prof. Odlum [C][3] A. M. Nanton [E][1] J. H. McVetty [M][1]	Nov.	26	Dec.	23 The Board presented a unanimous report recommending a basis of settlement which was subsequently, in correspondence with the Department, accepted by both parties, and a strike thereby averted.
								1908			
Dec.	19	Canadian Northern Railway and firemen, enginemen and hostlers in its employ.	Employees	Winnipeg and territory along Can. Northern Ry.	359	Concerning relations of Union to employer.	Prof. A. Shortt [C][4] F. H. Richardson [E][1] J. G. O'Donoghue [M][1]	Jan.	8	Jan.	25 Differences amicably adjusted before the Board and a strike thereby averted.
1908											
Jan.	8	Grand Trunk Railway Co., and carmen in its employ.	Employees	G. T. R. System.	800	Concerning wages and conditions of labour.	Prof. A. Shortt [C][3] Wallace Nesbitt [E][1] J. G. O'Donoghue [M][1]	Jan.	28	Feb.	28 Differences amicably adjusted before a Board and a strike thereby averted.
April	28	Canadian Pacific Ry. Co., and various trades in its mechanical department.	Employees	C. P. R. System.	8,000	Concerning wages and conditions of labour.	P. A. Macdonald [C][4] C. F. Fullerton [E][1] G. F. Galt [E][2] * Jas. Somerville [M][1]	May	13	July	16 The Board did not present an unanimous report, Mr. Somerville presenting a minority report. The Board made certain recommendations for settlement of dispute which were accepted by Company with some demur. Men refused to accept findings of Board and ceased work on Aug. 5. They returned to work on Oct. 5 accepting finally recommendations of Board.
May	14	Intercolonial Railway of Canada and station freight clerks' Unions Nos. 1 and 2 of Halifax, N.S., and St. John, N.B.	Employees	Halifax, N.S. and St. John, N.B.	.....	Concerning wages and conditions of labour.	His Hon. Judge McGibbon [C][4] H. Holgate C. E. [E][1] J. G. O'Donoghue [M][1] R. E. Finn [M][1] †	Sept.	8	Oct.	6 The proceedings in this case were under the Conciliation and Labour Act by request of the employees and where subject to delay through the inability to act of the member of the Committee of Meditation and Investigation first appointed on the recommendation of the men. The Committee was finally constituted and a settlement of all differences effected, a strike being thereby averted.
May	28	Canadian Pacific Ry. and railway telegraphers in its employ.	Employees	C. P. R. System.	1,605	Concerning alleged wrongful dismissal of certain employee	Hon. Mr. Justice Fortin [C][4] C. Campbell, K. C. [E][1] W. T. J. Lee [M][1]	June	17	Sept.	8 A unanimous report was made by the Board with recommendations for a settlement of all differences, which were accepted by both parties, a strike being thereby averted.

* Mr. Fullerton, finding himself at an early stage of the proceedings unable to agree with his colleagues resigned from the Board, and the company declining to make a further recommendation, the Minister appointed Mr. Galt without recommendation.

† Owing to inability of Mr. R. E. Finn to act as member of Board, Mr. J. G. O'Donoghue was appointed in his stead.

INDUSTRIAL DISPUTES INVESTIGATION ACT—Continued.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
1908									
Aug. 21	Canadian Northern Ry. Co., and carmen on its Lake St. John Division.	Employees	Lake St. John Division C.N.R.	49	Concerning wages and conditions of labour.	Ludovic Brunet [C][3] E. A. Evans [E][1] P. J. Jobin [M][1] A. Chartrain [M]*	Sept. 30	Nov. 19	A unanimous report was presented by the Board, making certain recommendations for the settlement of the dispute which were accepted by both parties to the dispute, a strike being thereby averted.
Aug. 22	Canadian Pacific Ry. Co., and firemen and engineers in its employ.	Employees	C. P. R. system.	7,000	Concerning alleged wrongful dismissal of certain employees.	Hon. Judge Fortin [C][4] W. Nesbitt, K. C. [E][1] J. G. O'Donoghue [M][1]	Jan.	5 Jan	25 A unanimous report presented by the Board, making certain recommendations for the settlement of the dispute, which were accepted by both parties, a strike being thereby averted.
Aug. 22	Canadian Northern Ry. Co., and locomotive engineers in its employ.	Employees	C. N. R. system.	341	Concerning wages and conditions of labour.	His Hon. Judge Gunn [C][1] F. H. Richardson [E][1] J. Harvey Hall [M][1]	Sept. 14	Nov. 16	A unanimous report was presented by the Board making certain recommendations for the settlement of the disputes, which were accepted by both parties, and a strike being thereby averted.
Dec. 26	Kingston & Pembroke Ry. Co., and employees members of Order of Railroad Telegraphers.	Employees	K. & P. Ry. system.	19 dir. 1,600 indir.	Concerning wages and conditions of labour.	His Hon. Judge Gunn [C][1] J. L. Whiting, K. C. [E][1] J. G. O'Donoghue [M][1]	Jan.	15	.... Proceedings unfinished at this close of the financial year.
Dec. 29	Great Northwestern Telegraph Co. and certain Railroad Telegraphers on M. C. R. system.	Employees	Michigan Central Ry. system.	75	Abolition of commission on commercial business on M. C. R. system by G. N. W. Co., without due notice.	His Hon. Judge McGibbon [C][1] J. F. Mackay [E][2] J. G. O'Donoghue [M][1]	Feb.	8 Mar.	22 A unanimous report was presented by the Board, making certain recommendations for the settlement of the dispute. The report was substantially in favour of the employees. The company had refused to nominate to the Board, and claimed irresponsibility on the matter. The enquiry, though not resulting in an agreement, is understood to have modified the situation and the threatened strike was averted.

* Owing to the inability of A. Chartrain to act as member of the Board, P. J. Jobin was appointed in his stead.

1909										
Feb.	19	Manitoba Cartage Co., Ltd.	Employees	Winnipeg Man.	40 dir. 260 indir.	Concerning alleged discrimination against men connected with the Union.	Rev. Dr. C. W. Gordon [C][3] Prof. R. Cochrane [E][2] T. J. Murray [M][1]	Mar. 2		A unanimous report was presented by the Board making certain recommendations for the settlement of the dispute. Although the Department was not formally notified of the acceptance of this report by either party it was understood that it was effective in establishing a better understanding between the Company and its workmen, the threatened strike being also averted.

2.—Street Railways.

Jan.	31	Hamilton and Dundas Railway Co. and Hamilton Radial Railway Co., and Hamilton & Burlington Ry. Co. and employees.	Employees	Hamilton, Ont.	120	Concerning relations of union to employing companies.	His Hon. Judge Monck [C].4 Wm. Bell, K.C. [E][1] J. G. O'Donoghue [M][1]	Feb. 17	April 8	Report of the Board was opposed to the claims of the men and was accompanied by a minority report from Mr. O'Donoghue, generally sustaining the claims of the men. Neither report was acceptable to both parties, but the effect of the investigation appeared to be to bring about a better understanding between the parties, and no cessation of work was reported.
May	8	Ottawa Electric Railway and its employees.	Employees	Ottawa, Ont.	256	Concerning wages and conditions of labour.	Prof. A. Shortt [C][4] G. F. Henderson [E][1] J. G. O'Donoghue [M][1]	May 22	June 15	Differences amicably arranged before the Board and strike thereby averted.
Sept.	3	Quebec Heat Light and Power Co. and its Street Railway employees.	Employees	Quebec, Que.	116	Concerning alleged wrongful dismissal of certain employees.	Omer Brunet [M] W. H. Moore [E]	.....	Oct. 6	The two members of the Board appointed respectively on the nomination of employing company and employees, presented a joint statement making certain recommendations for a settlement of the disputed points, which recommendations were accepted by both parties to the dispute as a settlement of the differences, a strike being thereby averted.

INDUSTRIAL DISPUTES INVESTIGATION ACT—Continued.

Date of receipt of application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman, (E) Employer, (M) Men.	Date on which Board was constituted.	Date of receipt of report of Board.	Result of Reference.
					3.—Shipping.				
*May 15	Shipping Federation of Canada and Longshoremen of Montreal.	Employers	Montreal, Que....	1,500	Demand for increase in wages.	Archbishop Bruchesi [C][3] G. W. Stephens [E][1] Jos. Ainey, [M][1]	June 7	June 17	On May 13 employees went on strike notwithstanding provisions of Act, and employers on May 18 withdrew application for Board. On May 15, Mr. F. A. Acland, the then Secretary of the Department, went to Montreal to explain the provisions of the Act to the parties to the dispute. As the result of Mr. Acland's intervention the employees returned to work, and agreed to refer the dispute under the Industrial Disputes' Investigation Act, and a formal application was made by the employees for the establishment of a Board. A unanimous report was made by the members of the Board, and an agreement recommended covering conditions of employment for the seasons 1907 and 1908. The Union did not formally accept the recommendations of the Board, but the members with the exception of a few, signed individual agreements with the employers, based upon the recommendations with the Board, and a further cessation of work was thereby averted.
*May 25	Shipping Federation of Canada, Canadian Pacific Railway Co. and Longshoremen of Montreal.	Employees	Montreal, Que....	1,600	Demand for increase in wages.				

* The two applications here recorded are regarded as one in the tabular statement.

May	31	Furness Withy Co., Cunard & Co., Pickford, Black & Co., and Longshoremen.	Employers.	Halifax, N.S.	500	Concerning wages. Increase of 5 cts. per hour demanded by men, 2½ cents offered by companies, but refused.	James Hall (E). Philip Ring (M).			On May 26, employees went on strike, alleging subsequently that they had no knowledge of the existence of the provisions of the Act. Mr. V. DuBreuil, Fair Wages' Officer of the Department, was sent to Halifax to explain the provisions of the Act. A Board was requested as a result of the explanations given, and while being constituted the dispute was amicably settled, Mr. DuBreuil lending the good offices of the Department as a conciliator. A further cessation of work was thereby averted, as was also the necessity of further proceedings in connection with the establishment of the Board.
1908										
Mar	6	Dominion Marine Association and Lake Seamen's Union	Employees	Kingston, Ont., and ports of Great Lakes.	450	Concerning wages and conditions of employment.	Prof. A. Shortt (C)[3] Jas. Stewart (E)[2] John A. Flett (M)[1]	April	1 April 14	Differences amicably arranged before the Board and strike thereby averted.

Date of receipt application.	Parties to Dispute.	Party making application.	Locality.	No. of persons affected.	Nature of Dispute.	Names of Members of Board: (C) Chairman; (E) Employer; (M) Men.	Date on which Board was constituted.	Date of receipt of Report of Board.	
1907 Aug. 28	Montreal Cotton Co., and employees.	Employees	Valleyfield, Que..	2,200	Concerning conditions and wages.	Hon. Mr. Justice Fortin, (C)[4] Duncan McCormick, K.C. (E)[1] W. Paquette (M)[1]	Sept. 4	Sept. 24	The employees went on strike on Aug. 13, and the good offices of the Department were requested with a view to effecting a settlement. Mr. F. A. Acland, the then Secretary of the Department, and Mr. V. DuBreuil, Fair Wages Officer, visited the scene of the dispute and explained the provisions of the Act to the parties, with special reference to the sections enabling a dispute in any industry other than that of a mine or public utility to be referred, by mutual agreement between the disputing parties, to a Board of Conciliation and Investigation. As a result of the explanations and efforts at conciliation on the part of the officers of the Department, an application for a Board was forwarded to the Minister, the employees in the meantime returning to work on August 26. The Board was duly established, with the result that the differences were adjusted and an agreement concluded before the Board dating from September 17, 1907, to be effective until May 4, 1908, and thereafter until either side be given a written notice of cancellation of the same. A feature of the agreement was the establishment of a permanent Committee of Conciliation, to which it was agreed that all subsequent disputes should be referred.
1908 Dec. 17	The John Ritchie Co., Ltd., and certain employees (lasters)	Employees and employers.	Quebec, Que.....	300	Concerning introduction of a certain machine and wages.	Dr. Chas. Cote (C)[3] Felix Marois (E)[1] Z. Bérubé (M)[1]	Dec. 31	Feb. 17	An agreement was concluded before the Board covering all matters in dispute effective from February 12, 1909, to May 1, 1910, a strike being thereby averted.

* These disputes were referred to a Board of Conciliation and Investigation under section 63 of the Act, which provides that "in the event of a dispute arising in any industry or trade other than such as may be included under the provision of this Act, and such dispute threatens to result in a lockout or strike, or has actually resulted in a lockout or strike, either of the parties may agree, in writing, to allow such dispute to be referred to a Board of Conciliation and Investigation, to be constituted under the provisions of this Act," &c. Applications referring to disputes in this class of industry were received also in the cases of W. A. Marsh & Co., Boot and Shoe Manufacturers, Quebec; the Rosamond Woolien Company, Almonte, Ont.; the Eastern Townships' Manufacturing Manufacturing Company, St. Hyacinthe, Que.; L'Association Internationale des Ouvriers en Fourrures, Montreal; the Davidson Manufacturing Company, Montreal, and A. Gravel Lumber Company, Etchemin, Que.; but the parties concerned not agreeing to refer their differences for adjustment according to the provisions of the Act, no action was taken by the Minister.

AMERICAN INTEREST IN THE ACT.

The obvious advantages offered by an acceptance of the principle of reason and moderation on which the Act is founded have not been overlooked by our neighbours of the United States. As has been pointed out in the introduction to this report enquiries of the Department concerning the Act, its theory, scope and operation have been received in great number from the United States, and there is abundant evidence that the Act has excited the keenest interest there, one of the most curious illustrations of this fact being the frequency with which, as already mentioned, it has become the theme of controversy between rival debating clubs in high schools and universities in the United States. A more practical outcome of the interest perhaps is that "sincerest form of flattery" which is said to lie in imitation, and which is found in the proposed enactment in several States of the Union of measures framed largely on the lines of the Canadian Act. The framers of bills to be presented on behalf of the Government of the States of California and Wisconsin did Canada the honour of consulting the Department of Labour on certain aspects of the law. The American measures differ in various ways from each other and from the Canadian Act, but concur in the vital principles of providing that no strike or lockout may legally take place until after the matter in dispute shall have been investigated, a principle first laid down in effective legislation by the Canadian Act. The American proposals appear as a rule to favour permanent Commissions or Boards which shall have entrusted to them the adjustment of industrial disputes prior to strikes or lockouts. The principle of bringing public opinion to bear upon the dispute, which is regarded as one of the elements promoting success in the case of the Canadian Act is recognized in the case of the Wisconsin Act by a provision declaring that the findings of the Commission covering a particular dispute shall be published in two newspapers in the locality where the dispute occurs.

DR. VICTOR S. CLARK'S VERDICT.

Reference was made in the annual report of the preceding fiscal year to the mission to Canada of Dr. Victor S. Clark, a noted American sociologist of Washington, D.C., who came here at the special request of Mr. Roosevelt, then President of the United States, to investigate the working of the Industrial Disputes Investigation Act. Dr. Clark's visit occurred in the spring of the year 1908, and his report was not published in time to permit more than a brief reference to it to appear in the annual report for 1907-08. It may, however, now be stated that after a very careful investigation of the proceedings which up to that time had taken place under the Act in the course of which the Commissioner visited many parts of Canada, was present at the sessions of a number of Boards, and interviewed the chief figure on either side in numerous disputes, Dr. Clark found substantially in favour of the measure. "So far," he said, "as can be judged from the experience of a single year the Industrial Disputes Act has accomplished the main purpose for which it was enacted, the prevention of strikes and lockouts in public service industries."

Dr. Clark's report was published in the May issue of the bi-monthly Bulletin of the United States Bureau of Labour, where it occupied eighty pages. The report was so valuable an analysis of the Act that the principal portions of it were republished in the *Labour Gazette* for September last. It is desirable, however, to draw special attention in the present volume to certain sentences taken from Dr. Clark's conclusions, and in reading them it should be remembered that the special object of Dr. Clark's enquiries was to ascertain the suitability of such a law for the United States. After expressing his views as above quoted concerning the effect of the Act after a year's operations, the distinguished American proceeded as follows:—"Apparently, it has not affected adversely the conditions of workingmen or of industries where it has been applied. It is much more applicable to American conditions than compulsory arbitration laws, like those of New Zealand and Australia, because its settlements are based on the agreement of the parties and do not prescribe an artificial wage, often illy adjusted to economic conditions. Employers and the general public in Canada, with a very few exceptions, favour the law. The working people are divided." Possibly workers do sacrifice something of influence in giving up sudden strikes, but they gain in other ways, especially in having a better alternative to a strike than before. And as part of the general public they profit by the saving of industrial waste through strikes.

"After such a law is once on the statute books, however, it usually remains, and in New Zealand, Australia, and Canada it has created a new public attitude toward industrial disputes. This attitude is the result of the idea—readily grasped and generally accepted when once clearly presented—that the public have an interest in many industrial conflicts quite as immediate and important in its way as that of the conflicting parties. If the American people have this truth vividly brought to their attention by a great strike, the hopeful example of the Canadian Act seems likely, so far as present experience shows, to prove a guiding star in their difficulties."

PROF. SHORTT'S VIEWS.

One of the most interesting pronouncements on the Act which has come to the notice of the Department during the year is that of Prof. Adam Shortt, who, on December 29 and 30, at Atlantic City, N.J., delivered an address on the subject before the delegates to the annual convention of the American Association for Labour Legislation. Prof. A. Shortt is at the present time a member of the Civil Service Commission of Canada and a resident of Ottawa, but prior to this appointment to the Commission in September, 1908, he was a distinguished member of the faculty of Queen's University, and as one of the leaders in social and economic thought in this country had been called upon to act as Chairman in the case of numerous Boards established under the Act, acquiring thus a special degree of familiarity with the various phases of the Statute and with the details of its machinery. It may be added that Prof. Shortt effected a number of most important settlements under the Act, and gave many practical illustrations of its advantages. Prof. Shortt's address to the American Association for Labour Legislation was not an analysis of the

Act of the type made by Dr. Victor Clark, but consisted rather of observations and deductions derived from his large experience in a practical administration of its provisions. The moderation of judgment and breadth of view that undoubtedly contributed largely to the marked successes scored by Prof. Shortt in the adjustment of disputes by the machinery of the Act are shown in the closing sentences of his address, which express also his final summing up of the subject:—

> "Considering how very seldom in their discussion of the merits of their respective cases the weaknesses of their own position and the strength of their opponents are frankly admitted I have been agreeably surprised to find how readily in the end, even in the discussion before the Board, but more particularly in the separate discussions afterwards, each side could be brought to concede the validity of their opponents' position on many points. Another encouraging feature, considering what interests are at stake, is the general calmness and good feeling which prevail in the discussions before the Boards. Occasionally the temperature may exhibit a sudden rise when some tender spot is rubbed, but such occurrences are rare. Much the liveliest case we experienced, in the way of an exchange of picturesque compliments, was one in which two very respectable international unions were seeking to establish themselves on the same base and on the same side of it with reference to a railway company.
>
> "There are many reflections suggested by the experience of the concrete cases which have been brought under the operation of the Canadian Act, but only a few samples could be presented in this paper. The policy and method of the Canadian Act by no means afford a certain remedy for industrial disputes. No practical man dreams that industrial disputes can be prevented from occurring, because there will always be cases where justice unavoidably pertain to both sides. There are, however, many disputes which are chiefly due to historic prejudice, mutual ignorance and misunderstanding, and it ought to be possible to dispose of most of these and to effect a working settlement in the case of many of the others. All that one may claim for the essential features of the Canadian Act is that, if tactfully handled, they provide a reasonable method of securing the maximum of concession with the minimum of compulsion."

ENQUIRIES CONCERNING THE ACT.

It will be of interest to glance in some detail at the enquiries received in the Department concerning the Act during the year. The general nature of these has been already indicated. As already mentioned the Act has been a favorite theme of debate between high schools and universities in the United States and in one case, as stated, such a debate took place between the students of the University of North Dakota and those of the University of Manitoba, the Americans being the defenders of the Act and winning the debate.

An intercollegiate debate on the merits of the Act was held also between the University of North Dakota and the Hamline University of St. Paul, Minn., and in this case at the request of the students full particulars of the Act were supplied to those taking part in the debate. The Department was also informed that the Act was discussed in debates by students of Knox

College, Galesburg, Ill., Cornell College, Mount Vernon, Iowa, the State Normal School at Oshkosh, Wis., the Nebraska High School Debating League, the Columbus Public School, of Columbus, Montana, and in a debate in Winterset, Iowa.

A number of the enquiries in regard to the Act from the United States were made for the purpose of ascertaining the extent to which the experience of Canada in this matter warranted the adoption of legislation along similar lines in the United States. The same might be said also of enquiries received from New Zealand and from other countries. In several instances distinguished visitors to Canada have availed themselves also of the opportunity of making personal enquiry into the Act and the results attending the operation of the same.

A memorandum showing the working of the Act was prepared for transmission to the Colonial Office. Copies of the Act and various reports and information in regard thereto were furnished also to Mr. R. Gregg, British Trade Commissioner in Canada, for the information of the British Board of Trade. Copies of the Act and publications in regard thereto were sent by request to Mr. Edward W. Frost, of Milwaukee, Wis., who was commissioned by Governor Davidson of Wisconsin to make a careful study of these questions. At the request of Mr. Charles McCarthy, Reference Librarian of the Wisconsin State Legislature, copies of the Act were also sent to Madison, Wisconsin, for use in the State Legislature.

Mr. E. C. Jack, Dominion Secretary of the New Zealand Farmers' Union, in applying to the Department for information in regard to the industrial laws of Canada, said: "The object of the request is to enable us to find the best possible solution of the labour problem of this country which at present is rather disturbing to the farmers of this Dominion."

Mr. Robert Seymour Walpole, Secretary of the Central Council of Employers of Australia, who visited the Department of Labour in order to obtain information concerning the Industrial Disputes Investigation Act, was furnished with the terms of the Act and with particulars of the proceedings thereunder and expressed himself as much interested therein.

Rev. Edward P. Shier, Eureka, California, Fraternal Delegate of the District Presbytery of the Presbyterian Church to the Trades Council of Eureka, in writing the Department for information concerning the Act, observed that the Trades' Council of Eureka was already much interested in the Canadian Law and was desirous of learning more on the subject. Mr. Shier added, "I am personally much interested in this law and it seems to me the most practical provision I have heard of and I hope to see some such legislation in our country."

In a letter received from Miss Kate Barnard, Commissioner of the Department of Charities and Corrections of the State of Oklahoma, acknowledging copies of the Act, Miss Barnard stated that reference was made to this measure in a discussion of a Compulsory Arbitration Bill before the State Legislature of Oklahoma and that the information which had been supplied to her in connection with the Industrial Disputes Investigation Act proved of the

" utmost value " and was used in the arguments presented both in the House of Representatives and in the Senate.

Mr. Cephas D. Allin, of the University of Minnesota, writing for certain publications of the Department, remarked: " I believe that in the Lemieux Act Canada has one of the best pieces of labour legislation that has yet been devised."

A letter from Mr. Sigvard B. Nelson, of Galesburg, Ill., to the Department contains the following tribute to the Act: " We are obliged to look to Canada for model labour legislation."

In a communication addressed to the Department in acknowledgement of various publications forwarded discussing the labour legislation of the Dominion, Mr. Sherman E. Danforth, of Berkeley, Cal., writes as follows: " In order to permit a more general knowledge of your splendid legislation on labour problems in my community, I shall turn over such matter to our public library, and in order to be able more intelligently to follow the history and development of your labour law, I desire to become a subscriber to the *Labour Gazette* for two years."

Among others to whom detailed information respecting the Industrial Disputes Investigation Act was furnished by the Department, in every case by request, during the past year, are the following:—

The Right Honourable James Bryce, British Ambassador, Washington, U.S.A.

The Right Honourable Viscount Dunluce, Barrow-in-Furness, England.

The Consul-General of Norway, Montreal.

The Honourable William A. Calderhead, Member of the Committee of Ways and Means of the House of Representatives, Washington, D.C.

Sir Hugh Bell, 95 Sloane Street, London, S.W.

Mr. Guido Rossatti, Italian Consulate, New York, N.Y.

Mr. A. D. Steel Maitland, Sauchieburn, Stirling, Scotland.

Mr. H. C. Hunter, Secretary, New York and New Jersey Branch of the National Metal Trades Association, New York, N.Y.

Mr. J. J. Flynn, International Secretary-Treasurer Interior Freight Handlers' and Railway Clerks' International Union, Chicago, Ill.

Mr. Westley Russell, General Secretary-Treasurer, Commercial Telegraphers' Union of America, Chicago, Ill.

Mr. E. William Weeks, Grand Secretary-Treasurer, Brotherhood of Railway Carmen of America, Kansas City, Missouri.

Mr. W. J. Lafrancis, Chairman, Legislative Committee Massachusetts State Council, United Brotherhood of Carpenters and Joiners of America, Springfield, Mass.

Professor R. T. Hoxie, University of Chicago, Chicago, Ill.

Rev. Amos Judson Bailey, Department of Church and Labour of the Congregational Association of New York, N.Y.

Dr. N. W. Hoyles, Osgoode Hall and Law School, Toronto.

Dr. F. P. Walton, Dean of the Faculty of Law, McGill University, Montreal, Que.

Professor E. B. Patton, University of Rochester, Rochester, N.Y.

Professor Francis P. Peabody, Chairman of the Department of Ethics, Harvard University, Cambridge, Mass.

Professor James E. Boyle, Ph.D., University of North Dakota, Grand Forks, N.D.

Professor Carl W. Thompson, Director of the School of Commerce of the University of South Dakota.

Mr. Emile Stocquart, Brussels, Belgium, President of L'Institut de Droit Compare.

Mr. J. R. Commons, Secretary of American Association for Labour Legislation, Madison, Wis.

Mr. Felix Marois, Department of Public Works and Labour, Quebec, Que.

Mr. John Humphrey, Secretary Wisconsin State Board of Arbitration and Conciliation, Milwaukee, Wis.

Mr. Norman Fraser, Provincial Inspector of Mines, Edmonton, Alta.

Reference Department, St. Paul Public Library, St. Paul, Minn.

The Canadian Mining Journal, Toronto, Ont.

Publication Committee National Temple of Labour Association, Washington, D.C.

The Editor of The Standard, London, Eng.

The Editor of The Cotton Factory Times, Ashton-under-Lynne, Eng.

The Editor, Textile Mercury, Blackfriars, Manchester, Eng.

Messrs. Hodges & Ridley, Attorneys, Gary, Indiana.

Eyre & Spottiswoode, London, Eng.

Henry Robinson, Counsellor at Law, Concord, N.H.

The Louisville Cotton Company, Louisville, Kentucky.

III.—ORIENTAL IMMIGRATION—A. STATEMENT REGARDING ANTI-ORIENTAL DISTURBANCES AT VANCOUVER, B.C., IN SEPTEMBER, 1907, AND ENQUIRIES AND MISSIONS ARISING THEREFROM.

In the Annual Report of the Department for the fiscal year 1907-08 considerable space was devoted to a discussion of the various missions and enquiries entrusted to the Department of Labour and arising out of the question of Oriental Immigration. The period covered by the Departmental report did not extend to the close of this series of enquiries, and it will be desirable to include in the present report statements regarding the later phases of the subject. In some degree indeed different aspects of the question of Oriental Immigration continued throughout the year to be the subject of investigations in which the Department was being interested, and which will be mentioned in their place, but the result of these investigations was not embodied in any formal or published report.

It may be well briefly to recapitulate the incidents leading to the original institution of the various investigations and missions relating to the important question of Oriental immigration. It was in the late summer of 1907, it will be remembered, that the subject was somewhat violently forced on public attention by an anti-Oriental disturbance in Vancouver, B.C., in the course of which many of the Japanese and Chinese residents of that city sustained serious damages to their property and business interests.

The circumstances with regard to immigrants from the Orient at this time were as follows: (1) In the case of the Japanese the total population of that race in Canada at the time of the census of 1901 was 4,074, practically all of whom were in British Columbia; by the beginning of 1907 this number had increased to 7,500 and during that year the immigration greatly increased so that for the ten months ending October, 1907, it totalled 4,429. (2) Chinese immigration, which prior to 1904 had been of considerable volume, despite a head tax of $50, was reduced to a nominal figure by the increased head tax of $500 decreed by Canada in that year. The total number paying the increased tax in fact from January 1, 1904, to June 30, 1907, was 121 only; but during the nine months following the Chinese immigration increased greatly in volume, and no fewer than 1,482 paid the head tax between June 30, 1907, and March 31, 1908; (3) Immigration from India, the third great division of the Orient, was practically unknown until 1906, and was inconsiderable until a year later when 2,124 entered the country; while during the following year these immigrants continued to arrive in somewhat greater numbers.

The great majority of these recent immigrants from the Orient, like their predecessors from China prior to the poll tax of 1904, had settled in British Columbia and the sparse white population of that Province at last believed itself face to face with a race problem.

THE OUTBREAK OF SEPTEMBER, 1907.

A somewhat similar situation existed on the other side of the boundary line. Early in September, 1907, there was an outbreak at Bellingham, Washington State, against Hindu labourers who were beaten and driven out of the city. The agitation spread to this country and, as stated above, on September 7, a somewhat serious disturbance took place at Vancouver, B.C., resulting in considerable damage to Japanese and Chinese property. The Prime Minister of Canada immediately telegraphed, through the British Ambassador at Tokio, a formal expression of regret to the Japanese Government, and, replying to a resolution passed by the Trades and Labour Congress on the general subject of Oriental Immigration, deprecated political action, but promised a careful enquiry into the whole matter. The result of the deliberations of the Dominion Government was that on September 13th, the Honourable Rodolphe Lemieux, Minister of Labour, was appointed a special envoy to Japan to discuss with the Japanese authorities the question of emigration from Japan to Canada. Mr. Lemieux sailed from Vancouver on October 30, conferred with the Japanese authorities and arrived back in Ottawa on January 10, 1908, having succeeded in effecting an arrangement whereby the Japanese authorities undertook voluntarily to restrict within narrow limits the immigration of their people to Canada. The Minister of Labour made his statement to the House of Commons on January 21. It may be added that the immigration from Japan was immediately diminished and when, a few months later, the permits which, it appeared, had been already given out by the Japanese authorities and unused, had been exhausted, the number of arrivals in Canada from Japan fell to a nominal figure.

In the meantime claims had been presented on behalf of the Japanese and Chinese residents of Vancouver for compensation for losses sustained by them during the disturbance of September, and on October 12, Mr. W. L. Mackenzie King, C.M.G., then Deputy Minister of Labour, was appointed a Commissioner to conduct an enquiry into the losses sustained by the Japanese population. The enquiry resulted in an adjustment of the claims presented at the figure of $9,036. While conducting the enquiry necessary to the completion of this adjustment, Mr. Mackenzie King was further appointed a Commissioner to enquire into the methods by which Oriental labourers had been induced to emigrate to Canada, and the enquiry which followed brought to light much interesting and important information with respect to the whole question of Oriental immigration.

The general result of these several enquiries or missions was embodied in formal reports or official statements, of which abstracts in several cases were printed in last year's annual report. In the case of the enquiry into the methods by which Oriental labourers have been induced to come to Canada a report was presented to Parliament in January, 1908, and an abstract of the same appeared in the annual report for last year. The report of that portion of the enquiry relating to immigration from China and India was not prepared until considerably later, the Commissioner having been occupied with other

duties, and was presented to Parliament on July 18, 1908, too late for inclusion in the annual report for the previous fiscal year; an abstract of the sections indicated is presented therefore in the present volume.

There remained to be dealt with the question of immigration to Canada from India, and on March 2, 1908, the Deputy Minister of Labour was again appointed a Commissioner to proceed to Great Britain to confer with members of the British Government on the subject of immigration to Canada from the Orient, and from India in particular. Mr. King sailed on March 6 for England and during the next few weeks met and discussed the subject of his mission with those members of the British Government concerned, namely, Lord Elgin, then Secretary for the Colonies; Mr. John Morley (now Lord Morley), Secretary for India, and Sir Edward Grey, Foreign Secretary, with the result that a satisfactory arrangement was reached as to immigration from India.

During Mr. Mackenzie King's absence on the last named mission, he was further appointed a Commissioner to adjust the losses sustained by the Chinese residents of Vancouver, which had not been dealt with at the time of the adjustment of Japanese losses. Mr. King took up the duties of this Commission on his return from England, proceeding with the enquiry on May 25 at Vancouver, and effecting an adjustment of the claims presented at the sum of $25,990.

Formal reports were presented during the past fiscal year as the outcome of the missions to England and the settlement of Chinese claims. Abstracts of these are printed in the present volume. It may be added that arising out of the enquiry into the Chinese losses in the disturbances at Vancouver in September, 1907, was a report by Mr. Mackenzie King on the subject of the opium traffic in Canada, the existence of which on an extensive scale had incidentally been brought to light during the investigation in question. This report contained recommendations looking to the suppression of the opium trade in Canada which were embodied in legislation enacted at the session of Parliament then in progress. An abstract of the report and the text of the Act are printed in the present volume.

OPIUM TRAFFIC INVESTIGATED.

It will, perhaps, be proper here to refer also to a further mission arising out of the incidents briefly recorded in the foregoing pages, and in which the Department, though having but a slight degree of official connection therewith, was deeply interested.

As mentioned elsewhere in this report, Mr. Mackenzie King, who had as Deputy Minister of Labour, conducted a number of the investigations and missions mentioned, resigned his connection with the Department on September, 1908, with a view to entering public life and was subsequently elected a Member of Parliament. The Dominion Government, in the meantime, received an invitation to name a member of the delegation to be appointed by the British Government to attend an International Opium Commission representing the leading nations and which was to assemble at Shanghai in February.

and in November Mr. King was appointed on the nomination of the Dominion Government a member of the delegation in question. Mr. King left for China in December, proceeding by way of India, so that he might personally investigate some aspects of the Oriental Immigration question and confer with the authorities in India, and at the conclusion of the conference at Shanghai he visited Peking with the same object.

The spirit in which the understandings effected with regard to immigration from Japan and India respectively have been interpreted by the authorities concerned is perhaps best demonstrated by drawing attention to the figures of immigration for these countries for the fiscal year, which show that in the case of both countries immigration to Canada has become practically a negligible factor. The figures in question are as follows:—

From Japan	495
From India	6

IV.—ORIENTAL IMMIGRATION.—B. MISSION OF DEPUTY MINISTER OF LABOUR TO ENGLAND CONCERNING IMMIGRATION TO CANADA FROM THE ORIENT AND FROM INDIA IN PARTICULAR.

During the month of March, 1908, Mr. W. L. Mackenzie King, Deputy Minister of Labour, was despatched by the Government of Canada to Great Britain for the purpose of conferring with various departments of the British Government on the subject of immigration to Canada from the Orient and from the East Indies in particular. The circumstances and objects of the mission are stated concisely in the following copy of a report of the committee of the Privy Council approved by His Excellency the Governor-General on March 2, 1908.

"On a memorandum dated 2nd March, 1908, from the Right Hon. Sir Wilfrid Laurier, representing that notwithstanding the regulations for the restriction of immigration from the Orient, certain classes of immigrants, in particular British East Indians, are being induced to come to Canada under circumstances which may necessitate a refusal of their admission to our shores;

"That experience has shown that immigrants of this class, having been accustomed to the conditions of a tropical climate, are wholly unsuited to this country, and that their inability to readily adapt themselves to surroundings so entirely different inevitably brings upon them much suffering and privation; also, that were such immigration allowed to reach any considerable dimensions, it would result in a serious disturbance to industrial and economic conditions in portions of the Dominion, and especially in the Province of British Columbia;

"That an effective restriction of immigration from India is desirable, therefore, not less in the interest of the East Indians themselves, than in the interest of the Canadian people;

"That, moreover, the whole subject of Oriental immigration is one of first concern to Canada, and affecting, as it does, the relations of the Dominion with foreign powers, and the relations of our people with fellow British subjects in India, involves considerations of the highest importance, not only to Canada, but to the British Empire as a whole;

"That it is desirable that on this important question there should be as complete an interchange of views between the authorities of Great Britain and Canada as may be possible, and that in reference to it there should be a complete understanding between the governments of the two countries;

"Mr. W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, has recently made his enquiry under Royal Commission into the causes by which Oriental labourers have been induced to come to Canada, and as he is familiar with the subject in its many bearings, Sir Wilfrid Laurier is of the opinion that by sending him to England to confer with the authorities of the Colonial and India Offices, and such other departments of the British Government as may be desirable, a more complete and satisfactory understanding of the situation may be reached than would be possible by the necessary limitations of official correspondence.

"Sir Wilfrid Laurier, therefore, recommends that Mr. King be commissioned to confer with the British authorities on the subject of immigration from the Orient and the immigration from India in particular, and that for that purpose he proceed to England immediately; also, that upon his return to Canada, Mr. King report to the Governor General in Council the result of his conference with the British authorities."

THE COMMISSIONER'S REPORT.

The report prepared by Mr. King as a result of the above mission bore date of May 2, 1908, and was presented to Parliament on May 4. The Commissioner having outlined the circumstances of his appointment and quoted the text of the Order-in-Council relating thereto proceeded as follows:

"Having been commissioned, as set forth in this report, I left Ottawa on March 5, and sailed for England from St. John, N.B., on the ss. *Empress of Ireland* on Friday afternoon, March 6, arriving at Liverpool on the morning of Saturday, the 14th, and at London on the afternoon of the same day.

"On Monday, I called upon the Right Honourable Lord Strathcona and Mount Royal, the High Commissioner for Canada, and learned that His Lordship, anticipating my arrival, had arranged for an immediate introduction at the Colonial Office. On the following day, I was received by the Right Honourable the Earl of Elgin and Kincardine, Secretary of State for the Colonies, who arranged for interviews during the course of the same week with the Right Honourable John Morley, Secretary of State for India, and the Right Honourable Sir Edward Grey, Secretary of State for Foreign Affairs. The interviews of the first week were followed by interviews with Lord Elgin, Mr. Morley and Sir Edward Grey during the three subsequent weeks, as well as by interviews with other gentlemen of the Colonial, India and Foreign Offices. Of the interest taken in the subject of my mission by the British Ministers and officials of the several departments with whom by their direction I was privileged to confer, I cannot speak too strongly, nor can I lay too great emphasis on the sympathetic manner in which the representations made on behalf of the people of Canada were received or the frankness and fullness with which the whole subject in its many bearings was discussed. Notwithstanding that Parliament was in session, and that in some respects the pressure of their duties was exceptional, the time accorded by the Ministers was so considerable that it was possible, within the duration of four weeks, to effect such an interchange of views and to conduct such negotiations as affords reason for believing that a satisfactory understanding of the situation has been reached, in so far, at least, as an appreciation of Canada's position in regard to Oriental immigration is concerned, and as may serve to prevent such immigration from India as may not be desirable in the interests either of the natives of that country or of the people of this country. Having concluded the necessary conferences and negotiations, I returned from England to Canada by the same vessel, sailing from Liverpool on the afternoon of Friday, April 17, and arrived at Halifax on the afternoon of Thursday, the 23rd, St. John on the following day, and Ottawa on the 25th.

NATURE OF INTERVIEWS.

"It is, perhaps, sufficient to direct attention to the words of the report of council above quoted, to the effect that foreign relations and considerations of high imperial importance are involved in the question of Oriental immigration, to make it apparent that a minimum of publicity is desirable in the matter of representations bearing upon this subject. It has seemed in the public interest, therefore, that the several representations and the views of the authorities of Great Britain and Canada respectively, should be set forth, together with an account of the negotiations, in a confidential memorandum to accompany this report, and that reference should here be made to such phases only as seem deserving of explicit mention, and the results of the negotiations outlined just in so far as may be necessary to afford a satisfactory understanding of the outcome of the mission. The adoption of this course will explain the brevity of this report.

"The question of the migration of peoples of the Orient, and the problems to which it gives rise, whether it be in connection with immigration or emigration as between different parts of the British Empire, or between portions of the British Empire and foreign countries, is by no means a new one to the British authorities. Australasia, South Africa and India have each forced a consideration of the subject upon the attention of British statesmen for years past. Of the outlying Dominions, Canada's experience has been the most recent, though in kind, the issues and possibilities involved are much the same. As between Great Britain and Canada the effect of this is not without its advantage to the Dominion. It has afforded in England a ready appreciation of Canada's position, and an understanding of the sort of considerations of which it is necessary to take account. That Canada should desire to restrict immigration from the Orient is regarded as natural, that Canada should remain a white man's country is believed to be not only desirable for economic and social reasons, but highly necessary on political and national grounds. With this general view is also held the particular one that in matters which so vitally affect her own welfare, Canada is the best judge of the course to be adopted, and that as a self-governing Dominion she cannot be expected to refrain from enacting such measures in the way of restriction as in the discretion of her people are deemed most expedient. As a corollary to this right of self-government is the understanding that British international alliances, and British connection, place no restrictions on the right of the Dominion to legislate as may be most desirable in matters affecting immigration. Whilst Canadian autonomy is thus fully conceded and respected, Canada's position as part of the British Empire is regarded as affording a sufficient guarantee that the exercise of her plenary powers in this particular will not be without a due regard to the obligations which citizenship within the Empire entails. The attitude of the Canadian Government, as evidenced by the present mission, was regarded as affording a most welcome and opportune expression of Canada's recognition of her responsibilities. Nothing could have been more cordial than the appreciation everywhere expressed, that in a matter so vitally affecting the interests of British subjects in remote parts of the Empire, Canada should have been the first to seek a conference with the parts affected, that the several policies might be brought into harmony and the wiser counsels of conciliation made to prevail.

"The variegated character of the British empire is in no particular, perhaps, more fully exemplified than in the circumstance that within its confines are to be found all the features which the problem of Oriental

immigration presents. This fact differentiates to a degree, as compared with countries of a single nationality, some of the factors which are of vital moment in a consideration of the best methods by which to cope with the difficulties that arise, in that whilst new obligations are encountered, opportunities of mutual arrangement and concession are afforded which are often impossible as between countries of distinct sovereignties. A recognition of the good of the whole brings with it an attitude of forbearance and restraint in the several parts, and, what is all important, a comprehensive understanding is rendered possible.

"It was clearly recognized in regard to emigration from India to Canada that the native of India is not a person suited to this country, that, accustomed as many of them are to the conditions of a tropical climate, and possessing manners and customs so unlike those of our own people, their inability to readily adapt themselves to surroundings entirely different could not do other than entail an amount of privation and suffering which render a discontinuance of such immigration most desirable in the interests of the Indians themselves. It was recognized, too, that the competition of this class of labour, though not likely to prove effective, if left to itself, might none the less, were the numbers to become considerable (as conceivably could happen were self-interest on the part of individuals to be allowed to override considerations of humanity and national well-being and the importation of this class of labour under contract permitted) occasion considerable unrest among workingmen whose standard of comfort is of a higher order, and who, as citizens with family and civic obligations have expenditures to meet and a status to maintain which the coolie immigrant is in a position wholly to ignore.

CAUSES OF IMMIGRATION FROM INDIA.

"My inquiry under Royal Commission into the methods by which Oriental labourers have been induced to come to Canada, which was conducted in the city of Vancouver during the months of November and December of last year, though not extensively pursued so far as the immigration from India is concerned, was quite sufficient to show that this immigration was not spontaneous, but owed its existence, among other influences, to—

"(1) The distribution throughout certain of the rural districts of India, of glowing accounts of the opportunities of fortune-making in the Province of British Columbia, visions of fields of fortune so brightly hued that many an India peasant farmer, to raise the money for the journey, had mortgaged to the lender of the village his homestead and all that it contained at a rate of interest varying from fifteen to twenty per cent.

"(2) The activity of certain steamship agents who were desirous of selling transportation in the interest of the companies with which they were connected and of themselves profiting by the commissions reaped.

"(3) The activity of certain individuals in the Province of British Columbia, among the number one or two Brahmins, who were desirous of exploiting their fellow-subjects; and certain industrial concerns which, with the object of obtaining a class of unskilled labour at a price below the current rate, assisted in inducing a number of the natives to leave under actual or virtual agreements to work for hire.

"A few of the natives may have emigrated to Canada of their own accord, or because of the desire of relatives, but had the aforementioned influences not been exerted, it is doubtful if their numbers would have been appreciable.

METHODS ADOPTED TO RESTRICT IMMIGRATION.

"How these several influences have been counteracted and an effective restriction obtained by administrative measures in such a manner as to render legislative action unnecessary, will be apparent from an account of what has been accomplished, as the result, in part, of the present negotiations, and in part, of legislative enactments and regulations already in force, the application of which to this class of immigration has not been hitherto wholly apparent.

"(1) The misleading effects of the distribution by interested parties of literature of the class above described has been offset by warnings which the Government of India has issued, whereby natives have become informed of the risks involved in emigration to Canada and of the actual conditions in so far as it is desirable that such should be known to persons about to sever their connection with one country for the purpose of taking up residence in another.

"(2) The steamship companies which have been in any way responsible for the recruiting of emigrants, have been given to understand that the Governments of Great Britain and Canada, and the authorities in India do not view with favour any action on their part calculated to foster further emigration from India to Canada.

"(3) The power of the steamship companies to ignore the wishes of the governments has been rendered largely inoperative by the application to emigration from India of the regulation of the Dominion government, prohibiting the landing in Canada of immigrants who come to this country otherwise than by a continuous journey from the country of which they are natives or citizens, and upon through tickets purchased in that country.

"(4) The Indian Emigration Act (XXI. of 1883) was framed with the view of affording protection to the natives of India, who, at the instance of private individuals or corporations, might be induced to leave India to work under indenture or agreements for hire in other parts of the empire, or in foreign lands. It was found that once away from India, advantage was not infrequently taken of the necessities of this class of labour, and that individuals were subjected to great hardships and privation. To remedy this the Act provides that emigration in the sense of departure by sea out of British India of a native *under an agreement to labour for hire* in some country beyond the limits of India, other than the island of Ceylon or the Straits Settlements, is not lawful except to countries specified in the schedule of the Act, 'and to such other countries as the Governor in Council from time to time by notification declares to be countries to which emigration is lawful.' Every such notification 'must contain a declaration that the Governor General in Council has been duly certified that the government of the country to which the notification refers, has made such laws and other provisions as the Governor General in Council thinks sufficient for the protection of emigrants to that country during their residence therein.'

"It is, therefore, to be said that emigration (in the sense defined) to Canada from India, it not lawful under the Indian Emigration Act, and cannot be made lawful except through the action of the Canadian Government in making the necessary laws, to the satisfaction of the Government of India, for the protection of Indian emigrants.

"It will, therefore, be seen, that of itself the Indian Emigration Act solves the problem, so far as it relates to the importation of contract labour from India to Canada, and this is the one class to be feared, since without some agreement to labour it is hardly to be expected that the

number of immigrants will be large. To render this law wholly effective so far as Canada is concerned, it would be sufficient to prohibit the landing in Canada of immigrants who come in violation of the laws of their own country.

"(5) With the danger of the importation of native labour under contract or agreement removed, there remains for consideration only such classes as might desire to emigrate from India of their own initiative, or as having left India and gone elsewhere, to China, for example, might be induced by agreement or otherwise, to emigrate to this country. To the immigration of the latter class the regulation of the Canadian government requiring a continuous passage from the country of which they are natives or citizens and upon through tickets, should prove an effective bar, whilst as to the former the same regulation, the warnings issued by the Government of India, and the greater care which it may reasonably be expected the steamship companies will exercise in the future, should prove a real deterrent It will be apparent, moreover, that having regard for the policy of the India Government in the protection of the natives as set forth in the Indian Emigration Act, the Government of Canada is fully justified in requiring, as has been its policy, of persons coming to Canada, without a knowledge of conditions, and with manners and customs wholly different from our own, especially where such persons are ignorant of our language and are without any agreement guaranteeing work, that they should, for their own protection, be in possession of a sum of money sufficient to ensure their not being reduced to a condition of mendicancy or becoming a public charge. The regulation at present in force, requiring all immigrants to have in their possession a sum of at least $25 constitutes a requirement which for the protection of the Indians themselves, is an obvious necessity. Should this amount prove inadequate it could be increased.

" There is thus, in the last analysis, a dovetailing, so to speak, of Great Britain's well-known policy in the protection of the native races of India, and Canada's policy in the matter of immigration.

A HARMONY OF POLICIES.

" Whilst effective as a means of restricting a class of immigration unsuited to Canada, it will be apparent that the arrangement as herein set forth is one which finds its justification on grounds of humanity as strong as are the economic reasons by which it is also supported. The liberty of British subjects in India is safeguarded rather than curtailed, the traditional policy of Britain in respect to the native races of India has been kept in mind, and the necessity of enacting legislation either in India or in Canada which might appear to reflect on fellow British subjects in another part of the Empire has been wholly avoided. Nothing could be more unfortunate or misleading than that the impression should go forth that Canada, in seeking to regulate a matter of domestic concern, is not deeply sensible of the obligations which citizenship within the Empire entails. It is a recognition of this obligation which has caused her to adopt a course which by removing the possibilities of injustice and friction, is best calculated to strengthen the bonds of association with the several parts, and to promote the greater harmony of the whole. In this, as was to be expected, Canada has had not only the sympathy and understanding, but the hearty co-operation of the authorities in Great Britain and India as well."

V.—ORIENTAL IMMIGRATION.—C. ENQUIRY BY DEPUTY MINISTER OF LABOUR UNDER ROYAL COMMISSION INTO JAPANESE LOSSES IN ANTI-ASIATIC RIOTS.

The report of the Department for the previous year contained statements showing the result of the several enquiries conducted under Royal Commission by Mr. W. L. Mackenzie King, then Deputy Minister of Labour, into the losses sustained by the Japanese and Chinese residents of Vancouver, B.C., during the anti-Asiatic riots in that city in the month of September, 1907. The formal report of the Commissioner in the case of the enquiry into Japanese losses was not, however, presented to Parliament until after the close of the fiscal year, and was not, therefore, available at the time the annual report was prepared.

The report of the Commissioner in this matter was presented to Parliament on June 30, 1908. The Order-in-Council relating to this Commission bears date of October 12, 1907, and reads as follows:—

> "On a memorandum dated September 27, 1907, from the Secretary of State, representing that he has received a communication from Mr T. Nosse, Consul-General for Japan, in Canada, stating that he was in receipt of a cable message from the Foreign Minister in Japan calling attention to the damages and losses sustained by the Japanese residents in Vancouver during the riots in the early part of the month of September, 1907, and expressing the hope that in view of the cordial and friendly relations existing between Japan and Canada, the case may be settled at Ottawa independent of the British govenment and without going through the usual diplomatic channels.
>
> "The Minister, therefore, recommends that the losses sustained during the recent riots by the Japanese population residing in Vancouver be ascertained with a view to their payment, and that Mr. W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, be appointed a Commissioner under the Inquiries Act, chap. 104, of the Revised Statutes, to conduct an inquiry into the losses and damages sustained by the Japanese population in Vancouver on the occasion of the recent riots in that city. The committee submit the same for approval."

The claims made on behalf of the Japanese residents of Vancouver were submitted to the government by Consul-General Nosse; they amounted to nearly $14,000, of which about $2,500 was for broken windows, &c., and the balance chiefly for loss occasioned by the closing of Japanese shops during several business days.

Mr. Mackenzie King left Ottawa for Vancouver on Monday, October 14, arrived at Vancouver on Sunday, October 20, and commenced an inquiry under his commission on Monday, October 21. Mr. F. W. Giddens, of the Department of Labour, was appointed secretary and stenographer to the commission, and Mr. Howard G. Duncan, Vancouver, acted as counsel on behalf of the Japanese government.

The Commissioner's report recited the steps taken by the Commissioner in opening the inquiry, and set forth the text of the notice issued to the public and the method by which the several claims were examined. The total number of claims presented was 107, of which eighty were for actual, and fifty-three for resultant or consequential losses. The total losses, as finally estimated, were fixed at $9,036, of which those totalling $1,553.58 were on account of actual damages and the remainder on account of resultant damages. In addition to this amount, it was recommended that the sum of $600 be paid to the Japanese Consulate in reimbursement for sums expended in preparing estimates of claims, and an allowance of $1,000 made on account of legal expenses. The sum of $139, expended by claimants in declaring their claims, was also recommended to be reimbursed. The report quotes in full the forms of release signed by the several parties.

METHOD OF ESTIMATING CLAIMS.

With reference to the manner in which the amounts allotted to the several claimants were estimated, the Commission stated as follows:—

"The evidence taken before the Commission will illustrate in a sufficiently comprehensive manner the bases on which the amounts allotted to the several claimants were estimated. It is not necessary, therefore, to more than indicate, in this report, the nature of the investigation and the points to which it may be necessary to direct special attention. Most of the claims presented appear to have been fair and reasonable. The fact that there is a difference of some $4,500 between the total amount claimed and the total amount awarded, is to be accounted for by the somewhat exorbitant claims made by one or two merchants for alleged losses in business, and more or less excessive claims made by some Japanese boarding-house keepers, who claimed indemnity for a time exceeding that for which it appeared reasonable to make an allowance, or who, in hiring guards for the protection of their property during the time of the riot and the days immediately succeeding, failed to exercise reasonable judgment in the amounts they expended on this score. It would appear, however, that the more responsible persons of the Japanese community in Vancouver, and, in particular, the merchant class, fixed with moderation the amount of the loss for which compensation was requested. In individual cases the amounts would indicate that the claimants had in mind an 'entente honorable' in the nature of some recognition rather than full compensation of actual losses or damages sustained.

"At the time of the riot, the Japanese consulate in Vancouver took immediate steps to ascertain the extent of the damage done to the several properties of the Japanese residents in the city. The services of a competent architect were retained to ascertain the actual damage and estimate the consequent loss. The consulate also retained a solicitor to assist in the preparation and declaring of the several claims, and the information thus collected was duly placed before the Commission. The civic authorities of Vancouver did not take any steps to ascertain the amount of the damage occasioned by the riot. With the exception, therefore, of the statement prepared at the instance of the Japanese consulate, there was no guide to the actual losses other than the sworn statements of the several claimants and the receipts produced by them for expendi-

tures incurred in making good the damage to their property. As receipts were produced in all cases save those in which repairs had not been made at the time the Commission was sitting, there was not the trouble of assessing the losses on this score, which might have otherwise been occasioned. The one difficulty which presented itself was that of estimating the amount to be allowed a tenant, where the owner of the property was a person other than a Japanese resident of the city. In all such cases, a careful examination was made of the terms of tenancy, and damages allowed to the extent to which there was reason for believing that the losses incurred would fall upon the Japanese claimant. In the case of the actual damages, the estimate submitted was somewhat in excess of the amount subsequently expended in making repairs. With the preparation of this estimate the several claimants had had nothing to do, and the difference in amount was one which a British subject assessing losses under the circumstances might have reasonably conceded, in the absence of specific contracts or actual receipts. In estimating the resultant or consequential damages, special regard was had to the evidence of the civic authorities in regard to the nature and effect of the disturbances, as well as to the peculiar circumstances in which the Japanese colony in Vancouver found itself placed in consequence of the unexpected and unprovoked nature of the attack made upon it. In some cases a personal visit was made to the premises and an inspection had of the books of the claimants."

ASSISTANCE ACKNOWLEDGED.

Referring to the assistance rendered to the Commission by Mr. Kishiro Morikawa, the Japanese Consul, and by Mr. Howard J. Duncan, counsel of the Japanese government, the Commissioner stated:—

"I desire to gratefully acknowledge the assistance given and the many courtesies extended throughout the enquiry and during my stay in Vancouver by Mr. Morikawa and the members of the Japanese consulate. While Mr. Morikawa took no part in the proceedings before the Commission, he was unsparing in his efforts to facilitate and expedite the enquiry, and but for the careful manner in which he anticipated in many particulars the needs of the Commission, it is certain that the investigation would have been materially prolonged. To Mr. Howard J. Duncan, the able counsel of the Japanese Government, the thanks of the Commission are also specially due, both for the care with which he advanced and safeguarded the interests of the several claimants and for the assistance given in eliciting facts relevant to the subject of the inquiry."

CORRESPONDENCE BETWEEN THE COMMISSIONER AND MR. MORIKAWA.

The Commissioner drew attention to the following communications which passed between himself and Mr. Morikawa, the Japanese Consul:

"Vancouver, B.C., Nov. 15, 1907.

"Dear Sir,—

"On behalf of the Government of Canada, I beg to enclose a cheque for the sum of $1,600, authorized by Order-in-Council, and payable to the

order of His Imperial Japanese Majesty's Consulate at Vancouver, being an allowance of $1,000 on account of legal expenses, and reimbursement to the amount of $600 for amounts expended by the Japanese consulate in the preparation of estimates and claims of losses and damages sustained by the Japanese population in the recent riots in the city of Vancouver, and the presentation of these claims before the Royal Commission appointed to enquire into the said losses and damages.

"The Japanese Consulate at Vancouver has not presented any account for expenses incurred in the preparation of estimates and claims, or for professional services of counsel who appeared before the Commission on behalf of the Japanese Government. When, as Commissioner appointed to enquire into the losses and damage sustained by the Japanese population in Vancouver, I requested you to kindly let me have a statement of the amounts expended by the Japanese consulate, you intimated in reply that it was not your intention, or the desire of the Japanese consulate, to allow a consideration by the Government of Canada of any expenses which the Consulate may have incurred in the preparation and presentation of claims made on behalf of the Japanese population in Vancouver.

" As you are aware, the careful preparation of estimates and claims, and the presence of counsel, greatly facilitated the enquiry. This of itself, in the opinion of the Dominion Government, is a sufficient reason why all such outlays should be fully met. I have, therefore, to express the hope that on further consideration, you will find it possible to accept the enclosed cheque on account of expenses incurred by the Japanese Consulate in this connection.

"The Government has, by Order-in-Council, also authorized the payment of the sum of $9,036 on account of losses and damages by the Japanese population in the recent riots, and the reimbursements to claimants the sum of $139, expended by them in declaring their claims. Cheques in payment of the amounts due the several claims are at present being made out in accordance with the amount assessed as a result of the enquiry under Royal Commission just concluded. These cheques I hope to be in a position to hand to the several claimants some time to-morrow.

"I am, dear Sir,

"Very respectfully yours,

" (Sgd.) W. L. MACKENZIE KING,
" COMMISSIONER."

" VANCOUVER, B.C.

" M. KISHIRO MORIKAWA,
" HIS IMPERIAL JAPANESE MAJESTY'S CONSUL."

MR. MORIKAWA'S REPLY.

"His Imperial Japanese Majesty's Consulate,
"Vancouver, B.C., November 19th, 1907.

"Sir,—

"Permit me, on behalf of my Government, to thank you for your letter of the 15th instant, enclosing a cheque of $1,600.00 as an allowance for expenses, legal and incidental, to my Government, in connection with the preparation and investigation of claims by Japanese residents for damages to their property in the unfortunate riots of the 7th September.

I also thank you for the notification of the allowance of $9,036.00 and costs of declaring claims by the Canadian Government for the payment of losses and damages sustained by the Japanese residents in the riot.

"I cannot too strongly express the satisfaction and approval of my Government in your award and adjustment of the losses and damages sustained by the Japanese residents here, a feeling, I am sure, shared by every claimant. If I may be permitted to say anything of a personal character, I would assure you that the great skill, unvarying patience and urbanity which marked your conduct of the Commission, has done much to restore the feelings of my countrymen here that the Canadian Government and the people of Canada are opposed to every element whose purpose is to defy the ordinary rules of decency in life, and the wider laws which bind nations in friendly accord.

"While appreciating the high and honourable motives which have prompted you and your Government to send me the cheque for $1,600, I regret that it is impossible for my Government to accept a reward for protecting the interests and property of the subjects of Japan. This, and this only, is my reason for returning to you the cheque for $1,600.00.

"You may assure your Government of my grateful acknowledgement of their generous course, a policy which I am sure will make for an increase of good feeling between our peoples.

"I have the honour to be, Sir,

"Your obedient servant,

" (Sgd.) K. Morikawa,

" H. I. Japanese M's. Consul.

" W. L. Mackenzie King, C.M.G., Commissioner.

"Vancouver."

CONCLUSION.

The report concluded by quoting at some length from the address of the counsel of the Japanese Government at the last session of the Commission and from the remarks of the Commissioner in reply, both addresses relating to the desirability of racial animosities being curbed and softened and to the good effects in the promotion of international amity that must flow from an enquiry such as that which had been held before the Commission, and from the disposition shown by Canada to afford the amplest protection to all dwelling within its borders, no matter of what nationality. An appendix to the report showed in detail the amount allowed to each of the several claimants for actual or resultant losses and for declaring claims.

VI.—ORIENTAL IMMIGRATION.—D. ENQUIRY UNDER ROYAL COMMISSION BY DEPUTY MINISTER OF LABOUR INTO METHODS BY WHICH ORIENTAL LABOURERS HAD BEEN INDUCED TO EMIGRATE TO CANADA—PORTION OF REPORT RELATING TO IMMIGRATION FROM INDIA AND CHINA.

On November 7, 1907, a Royal Commission was issued to Mr. W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, for the purpose of conducting an enquiry into the methods by which Oriental labourers had been induced recently to immigrate to Canada. The first portion of the report of the Commissioner, relating exclusively to emigration from Japan, was laid on the table of the House of Commons on January 20, 1908. The second and third portions of the report, dealing respectively with immigration from China and from India, were laid before Parliament on July 13, 1908. An abstract of the section first presented was printed in the annual report of last year; the sections presented later are dealt with in the present chapter.

To enable the result of the Commissioner's investigations to be more clearly understood, and to make the present narrative of events in this connection more intelligible and comprehensive, the conclusions framed by Mr. Mackenzie King with regard to that branch of his enquiry relating to Japanese immigration, though included in last year's report, are repeated on the present occasion.

The final chapter of the report closes in the following terms:—

> "If the narrative of this report, in so far as it relates to the immigration of Japanese into the Province of British Columbia has helped to reveal anything of the true inwardness of the situation, it must be apparent that through the absence of statistical data, the public has lacked an amount of information a knowledge of which might have materially assisted in removing erroneous impressions as to numbers, an all-important factor in discussions on a question of this kind. How many of the Japanese who have come to Canada within the past year were former residents of this country can only be approximately estimated by a process of deduction; no inquiries of immigrants on this score have been made and no records kept. How many have held passports for Canada, how many for the United States and how many for Hawaii, could not have been told without some such inquiry as the present. It is only within the last few months that a record of this kind has been commenced at one of the ports, and none was being kept at the other. In drawing attention to these facts there is no reflection upon the immigration officers at Victoria and Vancouver. They appear to have performed their duties faithfully and well, and to have had such duties in addition to those with which they are already charged, would have made their task impossible of performance. I would respectfully submit for consideration the advisability of giving to the work of the immigration officers on the Pacific a wider significance than has hitherto been accorded or possibly been necessary, and would suggest that a staff adequate to all the duties should be maintained.

"The practice of treating diseased immigrants might, it would seem, be discontinued on the Pacific coast without working any hardship save in exceptional cases; it would ensure greater precautions on the part of companies carrying immigrants and at the same time would lessen a little the duties of our own officers. It would seem reasonable, too, that Japanese holding passports for the United States should be required to present themselves for examination by the American officers before examination by our own; if rejected by the United States officers they should be declared *ipso facto* undesirables, so far as Canada is concerned, and not allowed to land.

"As for the Japanese immigration itself, the preservation of harmony between the several classes in the Province of British Columbia, no less than the furtherance of friendly relations between this country and Japan demands that there should be an effective restriction of the number of Japanese who shall be admitted to Canada each year. It is but fitting, however, that in providing for this restriction, account should be taken of the methods by which the immigration of the past year has been induced and that the responsibility for the large influx that has taken place should be placed where it properly belongs.

"If the present inquiry has revealed anything, it is that the Japanese Government has permitted to come to Canada during the past year, only the following classes:—

"(1) Merchants, officers, students and travellers to the number of about 100 as described.

"(2) Japanese formerly resident in Canada.

"(3) Such persons as may be designated 'relatives' or 'friends' of Japanese resident in Canada, and this only where the consul resident in Canada has certified that they were wanted, and that upon their arrival they would be sure of immediate employment or a home. This number has been approximately 190.

"(4) Contract labourers for work under a *bona fide* contract with a Canadian company or corporation, the *bona fides* of which contract has been certified to by the resident consul, and a duplicate of which has been produced at and approved of by the Foreign Office in Japan—a class of immigration which has been allowed only since April of the present year.

"With the immigration from Hawaii the Japanese Government has had nothing to do.

"Were the immigration of Japanese from Hawaii and all other points beyond the jurisdiction of Japan absolutely prohibited, and a stop put to the immigration of contract labour at the instance of individuals and companies in this country and immigration companies in Japan, and a like reserve shown in the future in the granting of passports to all other classes of persons as appears to have been practised in respect to these classes during the past year, the Japanese immigration to this country would not be such as, having regard for numbers, would be likely to cause any serious embarrassment to this country, or as to which exception could reasonably be taken. On the other hand, unless methods are adopted sufficiently effective to prohibit absolutely all immigration from Hawaii and the importation of contract labour from Japan, there are strong grounds for believing that the numbers of Japanese likely to enter Canada from the former islands will greatly exceed, within a few months, the numbers of the past year, and that the Canadian Nippon Supply Company and other like concerns will carry on a traffic in Japanese labour the like of which has not been equalled in the importation of any class of coolie labour that has ever been brought to our shores. I would most respectfully submit that an immediate consideration of this subject is desirable

not only in the interest of the people of the Province of British Columbia, but of the whole Dominion, and that any effective solution demands prohibition of such Japanese immigration as may come from countries beyond the jurisdiction of Japan, and an absolute restriction in the numbers that come from Japan direct."

IMMIGRATION TO CANADA.

Coming to the question of immigration to Canada from China the Commissioner stated as follows:—

"To explain the immigration of Chinese to Canada during the past year, it is necessary to take account of the immigration from China during previous years, and the measures passed by the Dominion Government in regard to this immigration. It was in the days of gold discovery in the mines of Cassiar and Caribou in the early sixties, and of the construction of the Canadian Pacific Railway in the early eighties, that immigration from China to Canada took place on a considerable scale, there being no restrictions of any kind imposed. The numbers became such, however, that in 1884 the Government of the day found it necessary to appoint a Royal Commission to make inquiry concerning this immigration, and in the following year, 1886, a tax of $50 per head was imposed on every Chinese immigrant. The number of Chinese who had come into Canada at that time was estimated as between nine and ten thousand. The Dominion Census for the year 1891 gave the total of Chinese in Canada as 9,129, of which number 8,910 were in British Columbia. From these figures it would appear that the large influx of Chinese into British Columbia during the building of the Canadian Pacific Railway, was well absorbed, nearly all apparently remaining in this country or others coming in to take their place. During the following decade the numbers so increased that in 1900 the Dominion Government increased the capitation tax from $50 to $100, the increase to take effect on January 1, 1901. It was contended by the people of British Columbia that this was inadequate and ineffective in preventing Chinese immigration to Canada, and the Government, in the same year, appointed a second Commission to investigate concerning Chinese and Japanese immigration into the province. The census in 1901 gave the total number of Chinese in Canada as 16,792, of which by far the greater portion were in the Province of British Columbia. The Commission appointed in 1900 found that, as represented, the $100 head tax upon Chinese was ineffective and inadequate, and recommended that the amount of the tax be increased to $500. Adopting this recommendation, Parliament, in July, 1903, enacted a law placing a tax of $500 on all Chinese entering the country, but its provisions did not come into force till January 1, 1904. The returns show that between June, 1900, and January 1, 1904, over 16,000 Chinese paid the tax of $100, as follows: —

Fiscal year, June, 1900 to 1901	2,518
" " " 1901 to 1902	3,525
" " " 1902 to 1903	5,245
June, 1903, to January 1st, 1904	4,719
	16,007

"In other words, the total Chinese population in Canada nearly doubled during the years 1900 to 1903, inclusive. Assuming that the bulk

of the Chinese who came into the country remained here, it would appear that at the time the $500 tax was imposed there were over 30,000 Chinese in Canada, most of whom were in the Province of British Columbia. What effect the new legislation had will be apparent from the following figures, which show the number of Chinese who have paid the tax in the years since the $500 limit was imposed.

From January 1, 1904, to June 30, 1904	0
" June 30, 1904, to June 30, 1905	8
" June 30, 1905, to June 30, 1906	22
" June 30, 1906, to June 30, 1907	91
" June 30, 1907, to March 31, 1908	1,482

RESULT OF INCREASE IN TAX.

"Paradoxical as it may appear, the all but complete cessation of Chinese immigration which followed the increase of the capitation tax to $500, which cessation continued up until the beginning of 1907, and the sharp upward movement which has taken place since, are each, in large measure, the result of the increase in the amount of the tax. . . . . The imposition of a $500 tax administered a death blow to the work of the labour agencies and contractors. For a while it raised an almost effective barrier against the natural tide. An advance of $50 or even $100 to emigrants coming under the guarantee of service was a risk which agencies or contractors, considering first the security of their profits, hesitated to incur; when this amount was raised to $500, such an advance could no longer be considered as a business proposition. Likewise, the Chinaman who was desirous of having his relatives or friends share his opportunity, discovered that through the imposition of the tax the economic inducement to immigration had been suddenly swept away. At the rate of wages then current for Chinese labour, he could extend to his friends no hope of being able to recover, even after many years of industrious toil, an outlay for admission so considerable. The Chinese at home looked on the new tax as constituting an all but impossible barrier. The Chinamen in the new land had not yet seen how this barrier was to be surmounted. Then the economic effect of the tax gradually became apparent. The Chinaman who had landed in this country prior to January, 1904, discovered that the state, unwittingly perhaps, had, by restricting further competition from without, created of his labour a huge monopoly; without organization, without expense, without even agitation, every Chinaman became a unit in a labour group more favoured than the most exclusive and highly protected trade union. Then monopoly began to do its work. The Chinaman, discovered his protected position, sought the advance in wages which comes from an increasing demand and a diminishing supply. Within a couple of years the wages doubled, and in some instances, more particularly in the case of servants of a better class, trebled, and even went beyond this point. Yip Sang testified that before the $500 tax was imposed, he paid Chinamen for packing fish, from $25 to $40 a month with food, that now he was obliged to pay for the same services, $60 to $70, that in other classes of employment Chinese were obtaining at the present time $2.50 a day, where before the tax had been imposed, only $1 was received. Thus, it has come about that as a result of the rise of wages consequent upon the monopoly created by the tax, Chinamen have found, speaking generally, that once in the country, it is possible to accumulate within half the time, the sum desired, and that thereafter the fortune from year to year is apt to be nearly, or more than double what it originally was.

"It took about three years for the economic changes to work out, and for the Chinaman to become fully aware of the new situation; once cognizant of it, he began to advise his relatives and friends in China.

"With the betterment of their economic conditions, the number of Chinamen returning for a visit to their own country began to increase. This number has grown so steadily since the tax was imposed that during the closing months of the past year, the steamship companies found it next to impossible to afford the accommodation demanded by Chinamen desirous of returning for a short sojourn to their own land. Many Chinamen who have gone on a visit to their own country have brought back with them relatives or friends. Others who have remained in Canada have sent home money to assist in the bringing of others out. Some have simply furnished the information and have left it to the intending emigrant to procure in such way as he might, the amount that was necessary to pay his passage and the tax imposed."

INCENTIVES TO CHINESE IMMIGRATION.

"The difference in the remuneration of labour in Canada and China, and the fact that the savings of a few years here, constitute a life fortune in China, have constituted the main incentives to emigration. The tax and its economic effects account for the numbers being what they are; the assistance given to their relatives and friends by Chinese, either here or in China, sometimes from humanitarian, sometimes from commercial motives, explain the means by which they have come. In addition to this a number of those who are coming at the present time are Chinese who have resided in the United States at one time, or have friends residing here at present. They know conditions on this side of the water, and not being permitted to enter the United States, are coming to this country."

The Commissioner then recited the statements of thirty-three Chinese chosen at random among newly arrived immigrants during November, as showing the natural causes to which the immigration is due.

The portion of the report relating to Chinese immigration concluded as follows:—

"It will be apparent from the several statements herein set forth, that the immigration of Chinese during the past year has been due largely to the interest taken by those already in this country in their friends and relatives in China. Among the Chinese the family bond is a close one, and in their recognition of its obligations they set an example to other peoples. The number of Chinese in this country being so considerable, it is not surprising, all things considered, that their relatives and friends should be coming in the numbers they are."

IMMIGRATION FROM INDIA.

Part III of the report, dealing with Hindu immigration, gives the following account of the extent of immigration from India to Canada during recent years:—

"Of immigration from the Orient, that from India is the most recent. Until the year 1905 immigration from India was practically unknown. Such natives of India as visited Canada, prior to that time, were not immi-

grants; they were, for the most part, tourists. The returns of the Immigration Department show that arrivals from India to Canada have been as follows:—

From June 30, 1904, to June 30, 1905	45
" June 30, 1905, to June 30, 1906	387
" June 30, 1906, to March 31, 1907	2,124
" March 31, 1907, to March 31, 1908	2,623
Total	5,179

" Of this number, many were in transit for the United States."

CAUSES OF HINDU IMMIGRATION.

"Mr. David E. Brown, general superintendent of the Trans-Pacific Service of the Canadian Pacific Railway, who lived for fourteen years in Hong Kong, and had charge of the company's business in the Orient, when asked before the Commission if he could suggest what had brought the Hindus to Canada in such numbers within the past year, stated in reply that he would say that the movement had had its origin in the visit of the soldiers of the different colonies of the Empire to London, at the time of the Queen's Jubilee; that the Indian troops who had returned home via Canada had been made much of, and were impressed by the country and its opportunities; that Indians were employed very largely as police in Hong Kong, and that it was from among their number that the movement had started in the first instance. Asked what year that would be, Mr. Brown replied 'five or six years ago, possibly three or four, it was about a year after, or two years after the Queen's Jubilee.' When it was pointed out that the Queen's Jubilee was in 1897, Mr. Brown said: 'Well, say five or six years after they would get back home. As satisfactory reports were sent back by these men on this side, others would be induced to come.

"There are some, doubtless, who share Mr. Brown's view, which at least, is an agreeable one, creating, as it does, the impression that immigration from India had its beginnings from a cause essentially imperial and patriotic. On the other hand, the evidence of the Indians who testified before the Commission indicates pretty clearly that the immigration from India which has been a matter of concern to the people of British Columbia, owes its origin to aims and methods which were anything but imperial or patriotic; that, in fact, the influx of recent years has not been spontaneous, but owes its existence in the main to (1) the activity of certain steamship companies, and agents desirous of selling transportation and profiting by the commissions; (2) the distribution throughout some of the rural districts of India, of literature concerning Canada, and the opportunities of fortune-making in the Province of British Columbia; and (3) the representations of a few individuals in the Province of British Columbia, among the number a Brahmin named Davichand, and certain of his relatives, who induced a number of the natives of India to come to Canada under actual or verbal agreements to work for hire, the purpose being that of assisting one or two industrial concerns to obtain a class of unskilled labour at a price below the current rate, and at the same time, of exploiting their fellow-subjects to their own advantage. Some of the natives may have emigrated to Canada of their own accord or because of the advice or desire of relatives who had come to this country, but had the influences here mentioned not been exerted, it is certain their numbers would not have been appreciable."

The Commissioner quoted extensively from the evidence taken during the enquiry to show the part played by the steamship agents in inducing Hindu immigration to Canada. The evidence of fifteen Hindu immigrants was summarized to illustrate the causes of the immigration and the methods at work. The text of a circular issued in India by certain steamship agents was also given.

CONCLUSIONS *re* HINDU IMMIGRATION.

The Commissioner concluded the portion of his report referring to immigration from India with the following sentences:—

> "It will be apparent from the brief review here given of a part of the evidence, that the immigration from India, and the methods by which it has been carried on, besides occasioning unrest in the Province of British Columbia, has resulted in great hardship and injustice to many of the Indians themselves. Apart altogether from the question of whether or not they are suited to this country, it is clear that without some supervision on the part of the authorities which will protect the natives from false representations, it is within the power of a few individuals to create a situation not only prejudicial to the lives and fortunes of hundreds of well-meaning and innocent persons, but of grave concern to the British Empire itself."

GENERAL CONCLUSIONS *re* ORIENTAL IMMIGRATION.

The Commissioner closed his report with the following reference generally to the subject of Oriental immigration:—

> "The inquiry into the methods by which Oriental labourers have been induced to come to Canada, while it has been concerned first with the immigration from Japan, second, with immigration from China, and third, with immigration from India, has revealed one circumstance of like application to all, and that is the necessity, if movements of this kind are to be properly regulated and controlled, of having in each of the countries of the Orient, a representative of the Dominion, whose duty it would be to keep the Canadian Government informed of matters affecting Canadian interests along other than merely commercial lines. Such representatives should be persons familiar with conditions in Canada, and Canadian affairs, and who might be expected to keep in touch with the official classes of the countries to which they are sent, and advise as to political or other policies of concern to the Dominion. A notification of what was happening in India or Japan, followed by intimations at the proper moment to the parties concerned, as to probable consequences, might have avoided much of the trouble of the past year, which, if it has any significance bespeaks a growing intimacy in our relations with the East, and the beginning of a class of problems which Canada hitherto has not been obliged to face."

VII.—ORIENTAL IMMIGRATION. — E. ENQUIRY UNDER ROYAL COMMISSION BY DEPUTY MINISTER OF LABOUR INTO LOSSES SUSTAINED BY CHINESE RESIDENTS OF VANCOUVER, B.C., IN ANTI-ASIATIC RIOTS OF SEPTEMBER, 1907.

Mr. W. L. Mackenzie King, Deputy Minister of Labour, was on March 25, 1908, appointed a Royal Commissioner to enquire into the losses sustained by the Chinese residents of Vancouver, B.C., on the occasion of the riots in that city during September, 1907.

At the time the Commission was issued Mr. Mackenzie King was in England, engaged on a mission to confer with the authorities of Great Britain on the subject of immigration to Canada from the Orient and from India in particular. Mr. King proceeded to Vancouver as soon as possible after his return to Canada, reaching that city on May 24. The Commissioner's report of the enquiry was presented to Parliament on June 30 following.

The report set forth that Mr. Tung Cheng-Ling, attaché of the Imperial Chinese Legation in Great Britain, came to Canada to be present at the enquiry. Mr. Owyang King, Chinese consul at San Francisco, and Mr. Moy Bok Hin, Chinese consul at Portland, Oregon, were also present for the same purpose. Mr. George Cowan, K.C., acted as solicitor for the city of Vancouver, and Mr. Arthur McEvoy as counsel for the Chinese Board of Trade at Vancouver and for the other claimants.

The Commissioner reported that on the presentation of claims by the solicitor, it was pointed out that although the number was considerable, several had been omitted, and that as the Commission directed an enquiry into all losses, it was decided that any claim which might be presented within three days of the opening of the Commission would be considered.

The Commissioner's report stated that claims as presented through England amounted in all to $26,774.61, of which amount $2,568.98 was on account of expenses incurred by the Chinese Board of Trade, $3,277.63 for actual damages, and $19,928.00 for resultant damages. As amended by the addition of new claims and the alteration of amounts in certain of the original claims during the course of the enquiry, the revised total amounted to $26,217.12, of which $3,190.14 was on account of actual damages, and $20,458 for resultant damages. In all, there were 227 claims presented, 125 being for actual and 102 for resultant damages. After a careful examination into each of the several claims, the Commissioner found that the losses amounted in all to $25,990, of which amount $3,185.00 was on account of damages to property, $2,969 on account of losses incurred by the Chinese Board of Trade, and $20,236.00 on account of losses consequent upon the suspension of business and in other ways.

METHOD OF ESTIMATING CLAIMS.

The report contained the following remarks with reference to the method pursued in adjustment of the claims:—

"It can serve no useful purpose to set forth in detail the bases on which the several accounts allowed to the respective claimants were arrived at, other than to say that while a strict regard was had for the fact that all payments would be defrayed from public monies, the trust nature of which cannot be too constantly kept in mind, each claim was considered in the light of the material facts and circumstances with a view to seeing that full justice was accorded to every claimant.

"With the exception of the estimates prepared immediately after the riot by one of the leading hardware companies of the city of Vancouver, at the instance of the Chinese Board of Trade, on which estimate the several claims for actual damages were based, there did not appear to be any estimate of actual losses. The civic authorities took no steps to ascertain the amount of damage done. Nevertheless, the actual damages were easily assessed. They were almost exclusively incurred on account of broken windows, signs and glass, a good portion of which was plate. The accuracy of the estimate was vouched for by members of the firm by which they had been made, and was further verified by the production of receipts by the several claimants for amounts expended. In the case of damage to property, the claimant, if a tenant, was allowed the actual loss only where it was shown that it had fallen upon him, and not upon the owner. With but one or two exceptions, the claimants in the case of damaged property were the owners and Chinese residents, and there was not, as in the case of the settlement of the claims of the Japanese tenants for damage done to property owned by white people, the same difficulty of ascertaining to whom, in the last resort, the cost of the damage was properly chargeable. In the case of broken plate glass, the several claimants were questioned in regard to insurance, and an examination made of insurance policies, where such existed; but in no case did it appear that the policies held by them were of such a nature as to entitle the claimants to any compensation from the companies with which they had insured.

"In the case of the resultant losses, which were largely in the nature of business losses on account of the necessary cessation at the time of, and the days immediately following, the riot, the accuracy of the several statements presented with the individual claims was vouched for by Mr. Ow Yang King, under whose supervision the same had been prepared. It was stated by Mr. Ow Yang King that in the preparation of these statements, a careful examination of the books of the several claimants had been made wherever this was thought necessary or desirable. Before the Commission, these statements, which related to business being done at the time of the riot, were tested by a comparison with the businesses of the several claimants as actually existing at the time of the sittings of the Commission, as well as by a comparison in each case with the total business of the year, and by a comparison of the business of one firm with that of others, claiming like or different amounts. The claimants, almost without exception, appear to have exercised moderation and a sense of fairness in the amount at which their respective business losses were estimated. In only two cases was a claim made for losses beyond a period of six days. Some of the claimants took account only of losses on account of expenditures for the time during which their places of business had been

closed, and omitted any reference to loss of profits during the same time. The only case in which there was any real difficulty in ascertaining resultant losses was in the amounts claimed for payments to guards in protecting property, and for boarding Chinese from different parts of the city, who took refuge in the dwellings of certain of the merchants during the time of the riot and the days immediately following. In assessing these losses, regard was had to the nature of the premises protected and the reasonableness of the number of persons alleged to have been employed or sheltered, and the amounts alleged to have been expended. Except in the case of restaurant keepers who lost some perishable goods, there were few claims for spoiled or damaged merchandize, and there were but one or two claims on account of loss of orders which it was alleged had been cancelled because of not being filled at the time of the riot.

"It appears that during the time of the riot, the Chinese residents purchased a considerable quantity of firearms and ammunition. The claimants were quite frank in their admission that these weapons had been purchased for the purpose of defence, and would, in all probability, have been used had further unwarranted attacks been made upon them. As it appeared that there was no necessity for the purchase of these firearms, any amounts claimed for payment on this score were wholly disallowed, as were also sundry small charges for the purchase of lanterns, hose and the like, which some of the claimants alleged they had obtained as means of protecting their property in the event of incendiarism."

EXCHANGE OF LETTERS.

The report contained a copy of the following communications exchanged between the Commissioner and the representative of the Chinese Government:

" VANCOUVER, June 11, 1908.

"Sir,—I have the honour to inform you that having made a careful examination under Royal Commission into the losses sustained by the Chinese residents of the city of Vancouver, in consequence of the anti-Asiatic riots in September of last year, I have, as directed in my commission, reported the result of the investigation, so far as relates to the total losses sustained, which I have estimated as amounting to $25,990.00. I recommended that, in addition to this amount, the sum of $1,000 should be allowed to the claimants on account of legal expenses.

" I have pleasure in further informing you that I have to-day received from Ottawa, a telegram stating that Council has approved the sums recommended for payment, and that an amount covering the same will be put in the supplementary estimates to be presented to Parliament at the present session, and will be paid to the claimants as soon as voted.

" I have the honour to be, Sir,
" Your obedient servant,

" (Sgd.) W. L. MACKENZIE KING,
" COMMISSIONER.

" MR. TUNG CHENG-LING,
" ATTACHE TO THE IMPERIAL CHINESE LEGATION OF LONDON,
VANCOUVER."

" Vancouver, June 13th, 1908.

"Sir,—I have the honour to acknowledge receipt of your favour of the 11th inst., informing me that after having made a careful examination, under Royal Commission, into the losses sustained by the Chinese residents of the city of Vancouver, in consequence of the anti-Asiatic riots of September last year, you have reported to the Governor-General of Canada in Council the result of the investigation so far as relates to the total losses sustained, which you have estimated as amounting to $25,990.00, with the recommendation that an additional sum of $1,000 be allowed to the claimants on account of legal expenses, and further informing me that you have received from Ottawa a telegram stating that Council has approved of the sums recommended for payment, and that an amount covering the same will be put in the supplementary estimates to be presented to Parliament at the present session, and will be paid to the claimants as soon as voted.

"I have the honour to inform you that I will communicate the contents of your note to our Minister at London, and I have no doubt that he will be much pleased at the result.

"In the present inquiries conducted by you, I beg to state that although officially neither my colleague nor myself could have been anything other than that of a spectator, yet personally we were much gratified by the fairness with which the inquiries were made and for the many courtesies you have shown us we desire to express to you our high appreciation and sincere thanks.

" I have the honour to be, Sir,

" Your obedient servant,

" (Sgd.) Tung Cheng-Ling.

" To Mr. Mackenzie King, C.M.G.,
" Royal Commissioner, Etc.,
" Vancouver."

ACKNOWLEDGEMENT OF ASSISTANCE.

The report contains the following with reference to the assistance rendered the Commission by the claimants' counsel and by the Chinese officials:—

"I have made mention of the presence of Mr. Tung Cheng-Ling and other Chinese officials at the sittings of the Commission. Their presence was not only gratifying, as an evidence of the appreciation of the Chinese Government of the action of the Canadian Government in instituting the investigation, but was also salutary as affording to the several claimants an assurance, if any such were needed, that their interests would be fully protected before the Commission. I have pleasure in acknowledging their assistance and courtesies wherever opportunity afforded. I desire to make special mention of the important services rendered by Mr. Owyang King in the preparation of the several claims, and of the valuable assistance given the Commission by Mr. McEvoy, the able counsel who appeared on behalf of the several claimants. But for the forethought and good judgment exercised by Mr. Owyang King and Mr. McEvoy at the

time of the riots, and in the preparation of the several claims, as well as in their presentation, the duties of the Commission would have been arduous indeed, and the time necessary for investigation considerably prolonged."

The report concluded with a reference to the opium traffic in British Columbia, concerning which information was disclosed in the course of the inquiry. A detailed statement was also given showing the amounts allowed the several claimants for actual and resultant losses.

A fuller statement on the subject of the opium traffic was subsequently issued by Mr. Mackenzie King in the form of a special report, an abstract of which appears in the next chapter.

VIII.—OPIUM TRAFFIC IN CANADA.—SPECIAL REPORT BY DEPUTY MINISTER OF LABOUR ON THE NEED FOR THE SUPPRESSION OF THE SAME.—TEXT OF LEGISLATION ENACTED.

In the report of Mr. Mackenzie King, the Deputy Minister of Labour, dealing with the settlement of the claims of the Chinese residents of Vancouver, B.C., for losses occasioned by the anti-Asiatic riots in September, 1907, attention was drawn to certain evidence given before the Commission disclosing the existence of opium manufacturing on a considerable scale in the Province of British Columbia. The Commissioner submitted that the operations of the opium industry should receive the immediate attention of Parliament and of the legislatures, with a view to the enactment of such measures as would effectually suppress the opium traffic in Canada, and wholly eradicate this evil and its baneful effects.

During the month of July a special report was presented to Parliament by Mr. King, dealing at some length with the need for the suppression of the opium traffic in Canada. It was pointed out that representations had been made on this subject to the Commissioner by the Anti-Opium League, an organization composed of Chinese residents of British Columbia. In reply, Mr. King stated that though he had no special authority to deal with the question in an official way, he would deem it a privilege as a citizen to look into the matter while in Vancouver and do his part to obtain the co-operation of the public authorities in the suppression of the evil. The League was invited to confer with Mr. King at any time for the purpose of further presenting the views of its members.

In referring to the further representations made before the Commission the Commissioner stated as follows:—

> "Subsequent to the receipt of the above communication, a deputation of three from the Chinese Anti-Opium League called upon me, and strongly urged my assistance to obtain the Government's help in their efforts to discourage and prevent the manufacture and sale of opium. Mr. Tung Cheng-Ling, the attaché of the Chinese Legation at London, England, who came to Vancouver to be present at the inquiry into the Chinese claims, also spoke to me upon the subject, and expressed the hope that in the interests of his fellow-countrymen, measures might be enacted which would lead to the suppression of this vice. I promised these gentlemen that I would give the matter attention, and took occasion to make a personal investigation of the factories in Vancouver, and to visit a number of so-called 'dens' where opium was being smoked. I also made inquiries from reliable sources as to the extent of the practice among Chinese and other people in the Province."
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> "Since my return to Ottawa," continued the Commissioner, "I have received a communication from the Anti-Opium League, containing the following resolution passed at its last meeting:—
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> "'Seeing that the use of opium is a social evil and the drug a destroyer of the lives of individuals and a detriment to the welfare of the community,

the Chinese Anti-Opium League of British Columbia humbly prays that the Federal Government of Canada will decisively exercise its authority and powers to prohibit the importation, manufacture and sale of opium into Canada, so that the social, physical and moral conditions of both the Chinese and the Europeans who indulge in the use of and the abuse of the drug may in consequence, be vastly improved.' ''

The Commissioner proceeded to submit facts and considerations which might in his opinion convey an adequate conception of the extent to which the traffic has developed in British Columbia, and to show how urgent is the need of prohibitory legislation.

OPIUM TRAFFIC AT THE COAST.

'' In the coast cities of Vancouver, Victoria and New Westminster,'' the report proceeds, '' there are at least seven factories carrying on an extensive business in opium manufacture. It is estimated that the annual gross receipts of these combined concerns amounted, for the year 1907, to between $600,000 and $650,000. The crude opium is imported from India in cocoanut shells. It is 'manufactured' by a process of boiling into what is termed ' powdered ' opium and subsequently into opium ' prepared for smoking.' The returns show that large amounts of crude opium have been imported annually, and that the value of the crude opium imported in the nine months of the fiscal year 1906-7 was greater than the value of the amount imported in the twelve months of the preceding year; the figures for these periods being $262,818, and $261,943, respectively.

'' The factories are owned and the entire work of manufacture is carried on by Chinese, between 70 and 100 persons being employed. One or two of the factories have been in existence for over twenty years, but the majority have been recently established. It is asserted by the owners of these establishments that all the opium manufactured is consumed in Canada by Chinese and white people, but there are strong reasons for believing that much of what is produced at the present time is smuggled into China and the coast cities of the United States. However, the amount consumed in Canada, if known, would probably appall the ordinary citizen who is inclined to believe that the habit is confined to the Chinese and by them indulged in only to a limited extent.

'' The Chinese with whom I conversed on the subject, assured me that almost as much opium was sold to white people as to Chinese, and that the habit of opium smoking was making headway, not only among white men and boys, but also among women and girls. I saw evidence of the truth of these statements in my round of visits through some of the opium dens of Vancouver.''

The Commissioner quoted an item from a Vancouver paper referring to the appearance of two women in the police court at the time the Commission was in session and added the following comment:—

'' It is almost inconceivable that such a story should have found a place on any of the court records of this country, and yet I was told by one of the leading physicians of Vancouver that he has been shocked at the number of cases of women addicted to the habit which have come to his notice in the regular course of his practice during the past year. As for the Chinese, the casual visitor to their quarter of the city may see them in numbers at any hour of the night or day indulging in and under the influence of this drug.''

PROVINCIAL LEGISLATION.

"What is hardly less surprising than the manufacture of opium," continued the Commissioner, "is that its sale should be permitted, and this, in some districts without safeguards of any kind. It is true there is provincial legislation which to appearances should restrict the sale, but for some reason best known to the authorities, it seems to be openly ignored. Sections 16 to 18 of the Revised Statutes of British Columbia, 1897, Chap. 27, contain the following provisions:—

"Section 16. No person shall, within the limits of any incorporated city or town in this province, keep open shop for the retailing, dispensing or compounding poisons, *or sell, or attempt to sell any of the articles mentioned in the Schedule "A" or Schedule "B" to this Act, unless such person is registered as a licentiate of pharmacy* under the Act, under the penalty set forth in section 20 in this Act."

"Section 17. Articles named or described in Schedule A or Schedule B shall be *deemed to be poisonous* within the meaning of the Act."

"Section 18. No person shall sell any poison named in Schedule A either by wholesale or retail, unless the box, bottle, vessel, wrapper or cover in which such poison is contained, is distinctly labelled with the name of the article and the word poison, and if sold by retail, then also with the name and address of the proprietor of the establishment in which such poison is sold; and no person shall sell any poison mentioned in Schedule to any person unknown to the seller unless introduced by some person known to the seller; and on every sale of such article the person actually selling the same shall, before delivery, make an entry in a book to be kept for that purpose in the form set forth in Schedule to this Act, stating the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, the purpose for which it is stated by the purchaser to be required, and the name of the person, if any, who introduced him, to which entry the signature of the purchaser shall be affixed, under the penalty set forth in section 20 of this Act; Provided the person actually selling the poison shall be liable to the penalty mentioned in this Act."

"Schedule 'A' to the Act, to which reference is made in the above section, includes 'Opium and its preparations, except paregoric and syrup of poppies.'

"Notwithstanding these provisions, sales of opium are made daily at certain of the Chinese shops without a single precaution being taken as prescribed in section 18, and without the person making the sale being 'a licentiate of pharmacy' as required by section 16. I witnessed several individuals come and make their purchases of opium, and have in my possession at the present time a quantity of the drug which I obtained across the counter of one of these shops. The vessel containing it is without label, name or address. I was not requested to enter a signature or answer a single question, and feel quite sure that no entry of its sale was ever made.

"In the face of open violation or neglect of the law of this kind, it is not so much a matter of wonder that the evil is gaining a foothold, and that as other countries are making it increasingly difficult for the drug to be obtained in any form, its importation, manufacture and sale should be growing apace in this land. The only effective remedy is to prohibit the importation, manufacture and sale alike, and this absolutely save in so far as an exception may be necessary for medicinal purposes only."

NEED OF DOMINION LEGISLATION.

"In enacting legislation to this end, the Parliament of Canada will not only effect one of the most necessary of moral reforms so far as the Dominion is concerned, but will assist in a world movement which has for its object the freeing of a people from a bondage which is worse than

slavery. It is well known that the government of China, during recent years has been taking active measures to suppress the opium evil within the Chinese Empire. Referring to this action of the Chinese authorities the Times of India, of May 9, of the present year, has the following editorial reference:—

"'Edicts emanating from the Chinese Government have not always fulfilled their purpose and Chinese promises have frequently fallen short of performances. There was some reason, therefore, for regarding Great Britain as quixotic in sacrificing a large portion of Indian revenue to meet the wishes of China in respect to the opium traffic. Impartial and unbiased reports from many different quarters leave no margin for doubt, however, that China is thoroughly in earnest, and that already the consumption of the drug has been greatly restricted. It is this fact that has caused opinion at home to veer round. The Chinese authorities have closed all the opium dens under their control, and it would be little short of a scandal if, after all the sympathy expressed for a people struggling to free themselves from the habit, the indiscriminate sale of opium were to be permitted in British settlements. Presumably, a clean sweep of these dens will shortly be made, not only in Hong Kong, but also in the Malay Straits and Ceylon.'"

"The allusion to England's sacrifice of Indian revenue will be understood from the following paragraph from the report of the '*Moral and Material Progress and Conditions of India* during the year 1906-7.' ordered printed by the House of Commons on May 18, of the present year. At page 71, the report reads:—

"'Towards the end of the year 1906, edicts were issued by the Government of China having for their object the suppression within ten years of the habit of consuming opium, and of the growth of opium, in China. Proposals were made for the co-operation of the Government of India in this object by the gradual restriction of the amount of opium exported from India to China. At the beginning of 1908 an arrangement was entered into by which the total quantity of opium (including Malwa opium) exported from India beyond seas will be limited to 61,900 chests in the calendar year 1908, 56,800 chests in 1909, and 51,700 chests in 1910. The question of making still further reductions after the year 1910 will depend upon whether China has, in the interval, effected a proportional reduction in its own production and consumption of opium."

"In effect the step taken by the British Government, if continued, will mean an annual diminution of the Indian export of opium to China until the tenth reduction brings it to the vanishing point."

ACTION OF THE BRITISH GOVERNMENT.

"The whole subject was fully discussed in a debate in the British House of Commons as recently as May 6, at which time the House adopted without a division a resolution to terminate the licensing of opium dens in the Crown Colonies, licensing having been, until recently, the method adopted of 'regulating' the traffic in those parts. The resolution was as follows:—

"'That this House having regard to its resolution unanimously adopted on May 30, 1906, that the Indo-Chinese opium trade is morally indefensible, welcome the action of His Majesty's Government in diminishing the sale of opium for export, and thus responding to the action of the Chinese Government in their arrangements for the suppression of the consumption of the drug in that Empire; and this House also urges His

Majesty's Government to take steps to bring to a speedy close the system now prevailing in some of the Crown Colonies, more particularly Hong Kong, the Straits Settlements, and Ceylon.'

"Colonel Seely, the Under Secretary of State for the Colonies, speaking on behalf of the Government, informed the House that on Monday, the 4th of May, the Government had telegraphed to the Governor of Hong Kong as follows:—'His Majesty's Government have decided that steps must be taken to close opium dens in Hong Kong, as they recognize that it is essential in dealing with the opium question in Hong Kong, that they must act up to the standard set by the Chinese Government.' In regard to Ceylon, a Commission which had sat had concluded its labours, and its recommendations were drastic. The Commission had recommended that the present system should be closed on the expiration of the existing license; that the importation, distribution and sale of the crude drug should be made a Government monopoly; that for every opium shop closed, the nearest Government dispensary should be made available for the distribution of the drug to habitual adult users, if they come forward to register their names, for a certain quantity to be periodically paid for in cash; that the use of the drug, except for medical purposes, should be absolutely prohibited after a definite period, and that a system of inspection should be introduced by the appointment of special officers for that purpose. The Governor of Ceylon had proposed, subject to the Secretary of State's approval, to accept and put in force all the recommendations, except that which urged prohibition after a definite time. The Secretary of State had that morning telegraphed to the Governor, sanctioning his proposals. As for the Straits Settlements, a Commission had been appointed to deal with the subject and was expected to report early in the autumn. On their report the Government proposed to take action. He could promise that in the Federated Malay States action would be taken which would lead with certainty in the direction of the ultimate extinction of the use of opium.

"During the course of the debate, the Right Honourable Sir Edward Grey, Secretary for Foreign Affairs, reminded the House that in 1901, the Secretary of State for India had declared that the Government would agree with China in any plan for the restriction of the consumption of opium brought forward in good faith, even if it caused some sacrifice and drew attention to the following decree issued by the Chinese Government on the 24th of March of the present year:—

"'We have already directed by Imperial Decree, that regulations should be issued under which the use of opium, both foreign and native, should be totally suppressed within the period of 10 years. The British Government have now agreed to effect an annual reduction in the amount of opium exported to China, and other friendly powers are willing to assist. This enlightened policy on their part has greatly impressed us. Under the agreement with the British Government, the reduction of the exports is to be continued for three years, and if it is found at the expiration of that period, that China has effectively decreased the consumption and production of opium, the policy of reducing the exports will still be carried on. To allow these three years to slip by without taking measures for the abolition of the drug would be a poor return for the benevolent policy of a friendly power, and a deep disappointment to philanthropists of all nations.'

"Replying to a question in the House of Commons two days previously, Sir Edward Grey had said:—'No opium dens exist at present in any of the British concessions in China.'

"During the course of the debate on the above resolution the Right Honourable Alfred Lyttelton, former Secretary of State for the Colonies, congratulated the Government upon having taken a step which seemed to be entirely reasonable in the circumstances."

ATTITUDE OF JAPAN.

" The attitude of Japan towards the opium evil is both instructive and profitable. To quote from a report of a committee appointed by the Philippines Commission to investigate the use of opium and the traffic therein, ' the opium law of Japan, in the words of a government official of Tokyo, is "prohibitive and effective." The opium law of Japan forbids the importation, the possession, and the use of the drug, except as a medicine, and it is kept to the letter in a population of 47,000,000, of whom 8,000 are Chinese. So rigid are the provisions of the law, that it is sometimes, especially in interior towns, almost impossible to secure opium or its alkaloids, in cases of medical necessity, and the government is determined to keep the opium habit strictly confined to what it deems to be its legitimate use, which use, even, it seems to think, is dangerous enough to require special safeguarding.'

" Article 159 of the Japanese law lays it down that any one manufacturing, having for sale, or growing opium in any form, shall be punished with penal servitude not exceeding seven years; and further, any person eating or smoking opium shall be punished with penal servitude not exceeding three years.

" In 1895 China ceded to Japan the Island of Formosa. The bulk of the population of that island is still Chinese, numbering about two and a half million. Prior to the Japanese occupation, the Formosans were not restricted in their importation and use of the drug. It was a commercial matter only. It was estimated that seven per cent. of the entire population were smokers of opium. The system adopted was one of government monopoly and the method one of ' progressive prohibition.' "

ATTITUDE OF THE UNITED STATES.

" Strikingly similar has been the action of the United States Government in dealing with the opium evil in the Philippines. Under the Spanish law the right to sell opium for smoking and other purposes was farmed out in the various provinces to a wholesale dealer, who purchased the privileges at a public auction. In 1903 the Philippine Commission appointed the committee to which reference has beeen made. There were three members of this committee, one of whom, a former Canadian, was the Right Reverend Charles H. Brent, Episcopal Bishop to the Philippines. They were authorized to visit the various oriental countries to investigate the measures taken by the different governments for the purpose of suppressing the use of opium. One of the results of the investigations by this committee was the adoption by Congress in 1905, of an Act fixing a duty on crude and manufactured opium imported into the Philippine Islands, giving powers to the Philippine Commission to enact measures to restrict or prohibit the importation of opium, and providing that after March 1, 1908, 'It shall be unlawful to import into the Philippine Islands opium, in whatever form, except by the government, and for medicinal purposes only, and at no time shall it be lawful to sell opium to any native of the Philippine Islands except for medicinal purposes.' At the present time, therefore, all importation of opium into the Philippine Islands has ceased, except for medicinal purposes, and the importation for that purpose is made by the government only.

"In the United States the importation of opium by the Chinese and trafficking in opium in China by United States' citizens are prohibited by Act of February 23, 1887—an Act to provide for the execution of the provisions of Article 2 of the treaty concluded between the United States and the Emperor of China on November 17, 1880. The section of the Act forbidding the importation of opium by Chinese is as follows:—

"'The importation of opium into any of the ports of the Emperor of China is hereby prohibited. Every person guilty of a violation of the preceding provision shall be deemed guilty of a misdemeanour, and, on conviction thereof, shall be punished by a fine of not more than five hundred dollars nor less than fifty dollars, or by imprisonment for a period of not more than six months nor less than thirty days, or by both such fine and imprisonment, in the discretion of the court.'

"By an Act of 1890, such opium as is manufactured in the United States is manufactured under the surveillance of officers and agents appointed by the government, and by American citizens only. They are obliged to give bonds and sureties for compliance with the many regulations of the Act. The sale of the drug is also carefully safeguarded."

LEGISLATION IN GREAT BRITAIN.

"In Great Britain, opium, and all preparations of opium or of poppies are classified as 'poison,' and their sale is regulated by the Pharmacy Act of 1868, which makes it unlawful for any person to sell poisons unless such person is a pharmaceutical chemist, registered under the Act, and complying with the restrictions and safeguards which the law imposes.

"Other instances of legislative enactments to suppress the opium evil, and to protect individuals from the baneful effects of this drug, might be given, if further examples were necessary. What is more important, however, than the example of other countries, is the good name of our own. To be indifferent to the growth of such an evil in Canada would be inconsistent with those principles of morality which ought to govern the conduct of a Christian nation."

LEGISLATION ENACTED.

Shortly after the presentation of this report, an Act "to prohibit the importation, manufacture, and sale of opium, for other than medicinal purposes," was introduced into the House of Commons by the Honourable Rodolphe Lemieux, Minister of Labour, which passed through its various stages and received the Royal assent on July 20th.

The text of the Act, as assented to, is as follows:—

1. "Every person is guilty of an indictable offence and liable to imprisonment for three years, or to a penalty not exceeding one thousand dollars and not less than fifty dollars, or to both, who imports for other than medicinal purposes, under regulations to be established by the Minister of Customs, any crude opium or powdered opium, or who manufactures, sells, or offers, for sale, or has in his possession for sale for other than medicinal purposes, any crude opium or powdered opium, or who imports, manufactures, sells, or offers for sale, or has in his possession for sale opium prepared for smoking."

"2. It shall not be an offence under Section 1 of this Act to sell or offer for sale, or have in one's possession for sale for other than medicinal purposes, opium in any of the said forms within six months after this Act comes into force, provided such opium is deposited in a Customs bonded warehouse for export under regulations to be established by the Minister of Customs."

IX.—THE OPIUM TRAFFIC IN THE EAST.—THE INTERNATIONAL OPIUM COMMISSION AT SHANGHAI.

The preceding chapter of the present volume has set forth the circumstances under which was brought to light the existence in Canada of a traffic in opium, the discovery being made in the course of an enquiry held before Mr. W. L. Mackenzie King, then Deputy Minister of Labour, into the claims of Chinese residents of Vancouver, B.C., on account of losses sustained during the anti-Oriental riots in that city during September, 1907.

Mr. King presented a special report on this subject which contained recommendations looking to the abolition of the traffic, and the recommendations were the basis of a bill which was enacted at the session of Parliament then in progress.

Some time subsequent to these proceedings the Dominion Government was requested to nominate a representative of Canada on the delegation which the British Government intended sending to an International Opium Commission called to meet at Shanghai in February, 1909, and in November, Mr. Mackenzie King was, on the nomination of the Dominion Government, appointed a member of the delegation. Mr. King, it should be remarked, had in the meantime ceased to be Deputy Minister of Labour, having in September, 1908, resigned his connection with the Department with a view to entering public life, and had been subsequently elected a member of the Dominion Parliament.

The following countries were represented on the Commission, viz., Great Britain, the United States, Germany, France, Russia, the Netherlands, Portugal, China, Japan, Siam, India and Canada.

Five commissioners were appointed by the British Government as follows, namely, The Right Honourable Sir Charles Cecil Clementi Smith, G.C.M.G., formerly Lieutenant-Governor and Colonial Secretary of Ceylon and Governor and Commander-in-Chief of the Straits Settlements, and who had served on a number of important British Commissions in Europe and the Far East; Sir Alexander Hosie, F.R.G.S., Consul-General for the province of Szechuen since 1902, and Acting Commercial Attaché of the British Legation at Peking; Mr. W. L. Mackenzie King, C.M.G., Member of the Canadian House of Commons; Mr. J. Bennet Brunyat, of the Civil Service, India; and Mr. R. Laidlaw, Member of the British House of Commons.

On behalf of the United States, the President of that country appointed as Commissioners, The Right Reverend Charles H. Brent, Missionary Bishop of the Philippine Islands; Dr. Hamilton Wright, well known in medical and scientific circles; and Dr. Charles D. Tenney, Secretary of the American Legation at Peking.

NATURE AND OBJECT OF COMMISSION.

This world-commission was proposed in the first instance, it is understood, by the Government of the United States, and the proposal was made that the Commissioners of the several countries when assembled in China should conduct a joint and impartial investigation into the scientific and material conditions of the opium trade and habit in the Far East which affect the possessions and direct interests of the several countries in that part of the world. The representatives of each nation participating in the proceedings were expected to be in a position, when the conference assembled, to report independently on the opium question on behalf of their respective countries, with a view to devising means to limit the use of opium in the territories or possessions of such countries and to ascertain the best means of suppressing the opium traffic wherever it exists. It was understood that when the Commission met in Shanghai, the representatives of the various powers would be prepared to co-operate and to offer jointly and severally, definite suggestions of measures which their respective governments might adopt for the gradual suppression of the opium cultivation, traffic and use, thus assisting China in her effort to eradite the evil from her empire. The individual Commissions, it was expected, would inform the General Commission when it met at Shanghai as to the regulations and restrictions in force at present in their respective countries or possessions, and would be prepared to formulate and discuss proposals for amending such regulations in points in which they may be found, in the course of the joint enquiry, to affect the production, commerce, use and disadvantages of opium in the Far East.

It will be seen that the Commission was to be of a character which would entitle it to take rank among the largest and most important which the world has known. It is doubtful, in fact, if there has ever been a gathering of the kind in which the empires of the east and the west have been brought into such intimate association.

The meeting of the Commission was originally fixed for January 1, 1909, but the sudden deaths of the Emperor and Dowager Empress of China late in the month of November occasioned a postponement of its proceedings for a month.

Mr. King sailed from New York on December 16, reaching England on December 22. The Commissioner spent some days in England discussing with the various governmental authorities concerned, at their request, certain aspects of the Oriental immigration question with which he had become familiar by reason of the different investigations and missions relating to that subject conducted by him while Deputy Minister of Labour. He proceeded from England to India and thence to Shanghai, the place of meeting of the International Opium Commission. While in India, Mr. King took advantage of the opportunity to investigate some phases of the question of immigration from that country to Canada and to discuss the same with the authorities of India.

From official reports of the Opium Commission which have been received in the Department, a brief statement of the proceedings at Shanghai, so far as they may be of special interest to Canada, has been prepared.

The Commission opened on February 1 and continued from day to day until February 26, the Right Rev. Dr. Brent, Bishop of the Philippines and Chief Commissioner from the United States presiding. Bishop Brent, it may be mentioned, is himself a native of Canada and a graduate of Trinity University, Toronto.

PRESIDENT'S OPENING ADDRESS.

The exact nature of the Commission and the spirit in which it approached the opium problem are, perhaps, best shown in the following sentences from Bishop Brent's opening address:—

> "It devolves upon me to pronounce with emphasis that this is a Commission, and to those who are informed—as all of you must be in matters that pertain to International affairs of this kind—a Commission is not a Conference. The idea of a Conference was suggested, but it seemed wise to choose this particular form of action rather than a Conference, because, for the present, at any rate, we are not sufficiently well informed, and not sufficiently unanimous in our attitude, to have a Conference with any great hope of immediate success. Further, this Commission is a temporary Commission as distinguished from some of the permanent Commissions already in existence, and if we were to look for the source of our origin, I think we would find it in the articles of the Second Hague Conference, which provides for such International Commissions of Inquiry where points of difference on matters kindred to that which is before us arise between the Powers. So that in all our deliberations and in all our committee work, we must bear in mind that we are to confine ourselves to facts that will enable us to reach, I trust, certain unanimous recommendations of a practical, broad and wise character in connection with those resolutions. But, if I may be permitted to make a suggestion to this assembly, it seems to me that it would be extremely wise if we were to rule out of our deliberations what might be termed useless historical questions beneath which a great deal of controversy lies hidden, and which would only tend to fog the issue. The one way to reach a satisfactory solution of a grave problem is to simplify, as far as possible, the elements of that problem, and I believe that history bears me out when I say that no great question has ever been satisfactorily settled until men have come to a realization of the fact that purely side issues, and controversial matters which do not touch the main question, must be set aside and ignored. They may be of interest, but they are of no practical importance and, indeed, are impediments in the actual working out of the main question.
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> "I feel that I am speaking not merely for myself and my colleagues on the American Commission, but for this entire distinguished assembly, when I say that we are here to do such work as will bring the utmost credit to our respective countries and the utmost benefit possible to mankind. We must study this question in its every aspect—moral, economical, and commercial, diplomatic also, if you will—and we must study it, as I have already said, with those two phases of courage which will bring us to a happy conclusion of our labours—with sincerity and thoroughness."

THE CANADIAN DELEGATE'S REPORT.

During the proceedings reports were presented on behalf of the various countries represented. That presented by Mr. Mackenzie King set forth the position of Canada with regard to traffic in opium and morphine respectively

and gave figures showing what had been the extent of the traffic in these two extracts during a number of years previous. In the case of opium it was shown that by the statute enacted on July 20, as stated in the preceding chapter, the importation, manufacture, and sale of opium for other than medicinal purposes had been prohibited under heavy penalties. The amount of crude opium imported into Canada during the five years less 3 months ending March 31, 1908, was 322,797 lbs., valued at $1,290,688; of powdered opium there had been imported in the same period 12,454 lbs., valued at $38,883. There had been a tendency to increase; the imports for the last of the five years named being 40 per cent. higher than those for the first year of the period. The revenue derived from opium imports during the period named had amounted to $267,364.

In the case of morphine the report mentioned that during the same session of the Dominion Parliament at which was passed the Act suppressing the opium traffic was enacted an Act making stringent regulations governing the importation, manufacture or sale of proprietary or patent medicines. The statistics adduced showed that during the five years (less three months) ending March 31, 1908, the amount of morphine imported into Canada reached 19,629 ounces.

RESOLUTIONS OF THE COMMISSION.

The following resolutions were adopted as a result of the deliberations of the Commission:—

Be it Resolved:

1. THAT the International Opium Commission recognizes the unswerving sincerity of the Government of China in their efforts to eradicate the production and consumption of opium throughout the Empire; the increasing body of public opinion among their own subjects by which these efforts are being supported; and the real, though unequal, progress already made in a task which is one of the greatest magnitude.

2. THAT in view of the action taken by the Government of China in suppressing the practice of opium smoking, and by other Governments to the same end, the International Opium Commission recommends that each delegation concerned move its own Government to take measures for the gradual suppression of the practice of opium smoking in its own territories and possessions, with due regard to the varying circumstances of each country concerned.

3. THAT the International Opium Commission finds that the use of opium in any form otherwise than for medical purposes is held by almost every participating country to be a matter for prohibition or for careful regulation; and that each country in the administration of its system of regulation purports to be aiming, as opportunity offers, at progressively increasing stringency. In recording these conclusions the International Opium Commission recognizes the wide variations between the conditions prevailing in the different countries, but it would urge on the attention of the Governments concerned the desirability of a re-examination of their systems of regulation in the light of the experience of other countries dealing with the same problem.

4. THAT the International Opium Commission finds that each Government represented has strict laws which are aimed directly or indirectly to prevent the smuggling of opium, its alkaloids, derivatives and preparations into their respective territories; in the judgment of the International Opium Commission it is also the duty of all countries to adopt reasonable measures to prevent at ports of departure the shipment of opium, its alkaloids, derivatives and preparations, to any country which prohibits the entry of any opium, its alkaloids, derivatives and preparations.

5. THAT the International Opium Commission finds that the unrestricted manufacture, sale and distribution of morphine already constitute a grave danger, and that the morphine habit shows signs of spreading; the International Opium Commission, therefore, desires to urge strongly on all Governments that it is highly important that drastic measures should be taken by each Government in its own territories and possessions to control the manufacture, sale and distribution of this drug, and also of such other derivatives of opium as may appear on scientific enquiry to be liable to similar abuse and productive of like ill-effects.

6. THAT as the International Opium Commission is not constituted in such manner as to permit the investigation from a scientific point of view of anti-opium remedies and of the properties and effects of opium and its products, but deems such investigation to be of the highest importance, the International Opium Commission desires that each delegation shall recommend this branch of the subject to its own Government for such action as that Government may think necessary.

7. THAT the International Opium Commission strongly urges all Governments possessing Concessions or Settlements in China, which have not yet taken effective action toward the closing of opium divans in the said Concessions and Settlements, to take steps to that end, as soon as they may deem it possible, on the lines already adopted by several Governments.

8. THAT the International Opium Commission recommends strongly that each delegation move its Government to enter into negotiations with the Chinese Government with a view to effective and prompt measures being taken in the various foreign Concessions and Settlements in China for the prohibition of the trade and manufacture of such anti-opium remedies as contain opium or its derivatives.

9. THAT the International Opium Commission recommends that each delegation move its Government to apply its pharmacy laws to its subjects in the Consular districts, Concessions and Settlements in China.

X.—REPORT OF ROYAL COMMISSION ON INDUSTRIAL DISPUTES IN COTTON FACTORIES IN THE PROVINCE OF QUEBEC.

Mr. W. L. Mackenzie King, Deputy Minister of Labour, was appointed during June, 1908, a Royal Commissioner to investigate the conditions of the cotton industry in the Province of Quebec with special reference to the frequent interruption of work in that industry as a result of strikes and lockouts. There had been from these causes during the earlier portion of the summer of 1908 a heavy loss of employment to the operatives of the cotton mills of the Province of Quebec and the relations between the cotton companies and their employees seemed not to be such as offered hope of speedy improvement in conditions.

The Order-in-Council appointing the Commission and setting forth the duties of the same bore date of June 29 and was as follows, viz.:—

"On a memorandum, dated May 27, 1908, from the Minister of Labour, representing that during recent years frequent industrial disputes have arisen in the cotton factories of the Province of Quebec, which have occasioned severe losses to both employers and employees, and have seriously affected the general welfare of the localities particularly concerned;

"That many of the cotton mills have lately reduced the wages of the employees, as a consequence of which, it is estimated there are at the present time, about six thousand operatives unemployed, either directly or indirectly in consequence of a strike or for other causes;

"That with a view to the establishment of more harmonious and satisfactory relations between employers and employees in this industry, it is advisable that an inquiry be made into and concerning such disputes and the nature and causes thereof;

"That the manufacture of cotton not being an industry in the nature of a public utility, an investigation under the provisions of the Industrial Disputes Investigation Act, 1907, cannot be conducted without the consent of both employers and employees, which joint consent has not been obtained.

"The Minister therefore recommends that it be referred to William Lyon Mackenzie King, C.M.G., Deputy Minister of Labour, as Commissioner under the provisions of Part 1 of Chapter 104 of the Revised Statutes of 1906, commonly called 'The Inquiries Act,' to hold and conduct such inquiry, with all the powers conferred therein upon commissioners, and that the said William Lyon Mackenzie King be allowed the amount of his actual and necessary disbursements in the execution of the said Commission.

"The Minister further recommends that the Commissioner have the right to determine the manner of conducting the proceedings in respect of such inquiry, and to make inquiries and investigation concerning the relations between employers and employees in the same or kindred industries in industrial centres other than those immediately affected with a view of making such recommendations as in his opinion may serve to promote amicable relations between employers and employees and to minimize the frequency and magnitude of industrial disputes in this industry.

"The Minister further recommends that the Commissioner be authorized to employ a stenographer for the purpose of taking down and recording the evidence, and to have such other assistance as in the opinion of the Minister of Labour may be necessary to have the inquiry conducted as thoroughly and expeditiously as possible, and that the Commissioner report to the Minister of Labour the evidence and proceedings, together with such opinions as he may see fit to express thereon."

The Commission to Mr. Mackenzie King was issued under the same date. The Deputy Minister of Labour was, at the time, in Vancouver, B.C., conducting the enquiry under Royal Commission into the losses sustained by Chinese residents of that city on the occasion of the anti-Oriental riots of September, 1907. This enquiry and certain departmental duties requiring attention occupied Mr. King until July 15 when the present enquiry was undertaken. The report of the Commissioner, bearing date of September 15, was laid on the table of the House of Commons on Monday, January 25, 1909, by the Minister of Labour.

The report shows that the enquiry before the Commissioner commenced on July 15 at Montreal, continuing with brief intermissions variously at that city, Valleyfield, Que.; and Magog, Que., until August 8.

The Commission also visited the mills of the Dominion Textile Company at Montmorency.

The evidence of fifty-six witnesses was taken before the Commission, the number including the managers and chief officers of the Dominion Textile Company and the Montreal Cotton Company, twelve superintendents and overseers, the leading union officials, twenty-three male operatives and nine female operatives. One of the chief factory inspectors of the Province was also examined.

The Commissioner pointed out in his report that the proceedings were materially shortened by the action of the officials of several companies in filing with the Commission detailed statements the accuracy of which was duly attested, showing salaries paid, rates of wages and hours of employment, and changes and hours during previous years, also statements showing the number of operatives employed and the causes and results of industrial disputes during the present, and previous years. Mr. Mackenzie King remarks that there was on the salient features of the inquiry very little conflicting testimony, and the prolongation of the inquiry would therefore have tended only to confirm testimony already given.

The Commissioner stated that frequent reference being made by both employers and employees to the conditions relating to the cotton industry of the United States it was considered desirable, with a view to securing accurate information, as well as for the purpose of comparison, to visit some of the larger cotton mills in that country, and during the month of August, Mr. King visited mills in Lowell, Mass., and Fall River, Mass., of a class similar to those in Canada. Mr. King was allowed personally to inspect these establishments, and had many valuable interviews with leading representatives of the industry. The Commissioner also conferred with officials of the State Bureaus of Labour in Massachusetts, New York and New Hampshire concerning the legislation and industrial conditions in these States as they affected cotton operatives.

The parties interested followed the proceedings of the Commission closely from day to day, it is stated, and were represented by their counsel. Mr. J. H. Montgomery appeared for the Dominion Textile Company and the Montreal Cotton Company, the two corporations controlling the cotton mills in the Province of Quebec. The operatives were divided into two groups through a division existing at the time in their ranks, each group being represented by its own counsel, the two counsels being Messrs. P. R. DuTremblay and J. C. Dumbray. The examination of witnesses was conducted by the different counsel and by the Commissioner.

Mr. King acknowledges "the helpful services rendered by Mr. Francis W. Giddens, as secretary, and Mr. Victor DuBreuil as interpreter." "The efficient manner," he adds, "in which these officers of the Department of Labour discharged their respective duties greatly facilitated the work of the Commission."

THE COTTON INDUSTRY OF CANADA.

The Commissioner devoted the earlier portion of his report to a general statement of the result of his investigations regarding the extent of the cotton manufacturing industry in Quebec, the various establishments being named and details as to their respective strength being set forth as follows:—

"With the exception of the Wabasso Cotton Company, Ltd., of Three Rivers, and the Mount Royal Spinning Co. of Montreal, both of which have been organized within the past year, but have not yet commenced active operations, the cotton factories of the Province of Quebec are owned and controlled by either the Dominion Textile Company, Ltd., or the Montreal Cotton Company, Ltd. The latter corporation is the older of the two, having been formed in 1888. Its head offices are located at Montreal, and its mills, when working under normal conditions, employ about 2,500 operatives, of whom over 1,500 are males and about 1,000 females. The Dominion Textile Company was organized on January 4, 1905, and subsequently took over the management of the Dominion Cotton Mills Company, The Merchants Cotton Company, The Montmorency Cotton Mills Company, and the Colonial Bleaching and Printing Company. Its head offices are also at Montreal, and it has mills at St. Henri, Hochelaga, St. Ann's, Magog and Montmorency. Employment is given in normal times to over 5,000 operatives, of whom between 2,500 and 3,000 are males and between 2,000 and 2,500 are females. During May of the present year, these operators were distributed between the several mills as follows: Merchants, St. Henri, 1,366; Colonial, St. Henri, 181; Hochelaga, 1,098; St. Ann's, 409; Magog, 548; Magog Print Works and Mechanical, 377; Montmorency, 1,055, making the total number of employees, 5,044.

"The other cotton manufacturing companies in Canada are: The Canada Colored Cotton Company, with mills at Cornwall, Hamilton, Marysville and St. Croix; the Cornwall and York Cotton Company, with mills at St. John, N.B.; the Hamilton Cotton Company, with mills at Hamilton; the Imperial Cotton Company, with mills at Hamilton; the Cosmos Cotton Company, with mills at Yarmouth, N.S.; the Mount Royal Spinning Company, a new company just organized at St. Henri in March, 1907; Wabasso Cotton Company, Three Rivers (recently organized). Of these the Dominion Textile Company controls the mills at Moncton, employing in May, 1908, 255 hands; the mills at Windsor, employing 195 hands; the mills at Kingston, employing 267 hands, and the mills at Halifax, employing 345 hands.

"The Dominion Textile Company employs in all over 6,000 hands, of which number more than half are males.

"According to the last Dominion census (1901) the total number of persons employed in the cotton manufacturing industry in Canada was 11,882, of which number 6,615, or more than half, were employed in the Province of Quebec."

ORGANIZATION AMONG COTTON WORKERS.

Considerable attention was next given to the question of organization among the cotton mill employees, the nature of the different organizations effected and their attitude towards the companies. The historical side of the question was dealt with in some detail. Reviewing, in outline, the history of trade unionism in the cotton industry of Canada, the Commissioner points out that, in a period of a less than a decade, some of the operatives had belonged to organizations as follows:—

"1. A local organization embracing in its membership not merely operatives of a particular class, but persons of various trades and callings.

"2. The National Trades and Labour Congress, unlike the Knights of Labour and the Dominion Trades and Labour Congress, in that its members belong to locals with no international affiliations; unlike the Knights of Labour, but like the Dominion Congress in that the membership of the several locals is made up of persons belonging to a particular trade.

"3. The United Federation of Textile Workers of America; an international federation restricted to operatives in the textile trades.

"4. The Federation of Textile Workers of Canada; an organization the membership of which is likewise restricted to operatives in the textile trades, but which confines its membership to persons resident in the Dominion.

"5. The International Spinners' Union of America, an organization which is limited in its membershp to one particular class of operatives, but international in its jurisdiction.

"6. The Union Amicale, a local organization differing from the recognized trade union in that it admits to membership certain of the companies' officials, and which from its constitution would appear to partake rather of the nature of a benefit society than a regular trade union.

The Commissioner dealt at some length with the incident of the establishment of the Federation of Textile Workers of Canada in 1907, and the differences which sprang up among the leaders of the Federation in the spring of 1908.

CAUSE OF DISPUTE OF 1908.

It was while these differences were a subject of discussion that on April 25, 1908, the companies announced their intention to effect, on May 4, a reduction of 10 per cent. in the wages of all operatives. A considerable difference of opinion arose between the two factions of the employees as to the attitude to be assumed on this reduction; one group favouring an acceptance, another group opposing. There had been a good deal of short time during the preceding winter, and the Commissioner pointed out that a reduction in the wages rate following this seemed to the operatives a hardship amounting to injustice, "the keen sense of which was not lessened by public statements of

the Company in which substantial dividends and accounts of business extension reflected the prosperity of the preceding year." Strikes and lockouts followed, in the course of which from 5,000 to 6,000 employees were affected, and a total loss of 133,000 to 134,000 working days entailed. With respect to the responsibility for this particular strike the Commissioner remarked that investigation had convinced him that it should be divided between the employers and the leaders of the Federation itself. The division in the ranks of the Federation found expression before the Commission in the appearance of separate counsel representing each of the contending factions.

> "With the Union Amicale as a third element, the differences between the workers were presented before the Commission from three different points of view, with the result that a major part of the testimony had to do with the antagonisms of the contending factions within the ranks of the workers, and only secondarily with such grievances as were of common concern or had an immediate bearing upon the conditions of employment.
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> "What the membership in these several organizations has been and what the membership is among such of these organizations as are still existing," observed the Commissioner further on, "is a matter on which the estimates presented to the Commission varied so widely that it would be dangerous to hazard an opinion. It was admitted that membership in the several organizations had been considerably reduced in consequence of the division and dissension, as well as unemployment occasioned by the strike and depression in the trade. As the parties themselves were averse to making public the membership as given in exhibits filed before the Commission, it may be as well to make no reference to numbers here."

COMPANIES' METHODS OF PROCEDURE.

The Commissioner particularly criticized, so far as the companies are concerned, the manner in which employees were informed of the intended reduction in wages, namely, by the following notice posted in the several mills on Saturday, April 25:—

MERCHANTS' BRANCH.

"A reduction of 10 per cent. in wages of all employees will go into effect on the 4th "of May, 1906.

"DOMINION TEXTILE COMPANY, LIMITED.
"*Merchants' Branch.*"

"A little conferring and explanation," remarked the Commissioner, "an attitude at least of understanding, to say nothing of possible concessions or alternatives, might have gone far towards avoiding the rupture which occurred. On the other hand the very circumstances which demanded consideration on the part of the employers placed a double responsibility on the labour leaders. . . . It is a question of ethics just how far, all facts considered, the companies were right in saddling on the operatives, to the exclusion of all other alternatives, the cut which it was necessary to make to save the dividends. A glance at the salaries paid to overseers, superintendents and other officers of the companies show these to be generous enough. . . . There can be no doubt that a recognition of the fact that the depression was temporary, that the cause was one for which the operatives were no more responsible than others connected with the industry, and a willingness to share all along the line in the temporary misfortune which

had overtaken the trade would have altered the situation at once, and would have been equitable in the highest degree. This is a kind of business morality which may not be generally practiced. It is, however, fortunately enough, not without instances in this country."

The Commissioner illustrated this last point by a quotation from evidence given by Mr. S. W. Robbins, the Manager of the New Vancouver Coal Mining and Land Company, before the Royal Commission on Labour Disputes in British Columbia in 1903, and added that as a consequence of this method of dealing with his employees, Mr. Robbins had not one strike during the 21 years of his management of the mines of the Company named.

The Commissioner pointed out that the operatives attributed the granting of a number of increases in 1906 and 1907, full details with regard to which are given, solely to the efforts of their organization, without reflecting that the prosperous condition of the industry in those years was a large factor in the situation. They were accordingly the less inclined to accept a reduction when conditions warranted, and to think that united resistance might prevent a lowering of the scale.

EFFECTS OF TARIFF ON COTTON INDUSTRY.

Referring to the effects of the tariff on the cotton industry, the Commissioner remarked:—

"That the tariff, apart from the present temporary depression with which it was admitted to have had nothing to do, was not in any way responsible for the falling off in trade in the cotton factories of Quebec, or the consequent recent reduction in wages, is abundantly proved from the statements of the head officials of the companies, and the annual reports of the directors."

Various extracts from these statements were cited by the Commissioner, who added:—

"The evidence as a whole proves conclusively that under the existing tariff the cotton manufacturing companies of the Province of Quebec have until the present depression set in, enjoyed prosperous years, that the tariff has been in no way responsible for the depression, which has been world-wide and greater in England and the United States than in Canada, that until the depression set in so prosperous were conditions that the effects of foreign competition were not felt. At most all that can be said of the lowering of the tariff, so far as the actual experiences of the cotton mills of Quebec is concerned, is that during this period of temporary depression. it has caused the effects of competition to be felt sooner than they otherwise would have been, whereas at other times it has not been such as to cause those engaged in the industry to feel the effects of foreign competition, and has been an undoubted benefit to the consumer."

EMPLOYMENT OF WOMEN AND CHILDREN.

Several pages were devoted by the Commissioner to a discussion of the conditions of labour in the cotton mills of Quebec as they affect women and children, and strong representations were made regarding the employment of children under age. The remarks of the Commissioner on this subject were as follows:—

"During the inquiry a considerable amount of evidence was given with reference to the employment of women and children in the cotton mills of Quebec. While it does not appear that the employment of women and children has been made the subject, save indirectly, of industrial disputes of any importance, a consideration of this class of employment would seem to come very properly within the scope of an inquiry which has to do with the conditions of employment of operatives and the important question of wages and hours with which most of the disputes have been concerned. The existing scale of wages is the result of competition amongst the operatives, and the most important elements in this competition are female and child labor. It has been shown that of the operatives employed in the Quebec Cotton Mills, 42.3 per cent. are females, and 26.6 per cent. are persons under 18 years of age. As to the hours of labour of these two classes it was asserted that in normal times under normal conditions, work would begin on week days at 6.15 a.m. and continue till 12 noon, resume at a quarter to 1, and continue till 6, with the exception of Saturday, when there was work only in the morning. It was stated by many of the witnesses, and the accuracy of the statement was not challenged, that operatives were obliged to be at their places of work a little before the time fixed, though a like practice did not exist in regard to leaving it. This is a work week of 60 hours and over. In Massachusetts, where the large cotton mills of Lowell and Fall River are situated, the hours of labour of women and minors are 58 per week, and by an amending Act approved on June 13, 1908, to come into effect January 1, 1910, the number of hours for women and minors in Massachusetts will be reduced to 56 per week, except in certain establishments and under certain conditions, but in no case to exceed 58. In the State of New Hampshire also, the hours of labour for women and minors are fixed at 58 per week. A reduction of hours of labour to this maximum for similar classes of operatives in Canada would appear to be desirable on both economic and humanitarian grounds, and in this connection it would seem important that the law should leave no doubt as to the total number of hours to be worked in any one day.

THE QUEBEC LAW.

"The section of the Quebec Statute which relates to hours of employment is as follows:

"3025. 'Except in the case mentioned in article 3026, no boy under eighteen years of age, and no child, girl or woman shall be employed in any of the establishments, mentioned in article 3020, for more than ten hours in one day or for more than sixty hours in any one week. Any employer may apportion the hours of labour per day for the sole purpose of giving a shorter day's work on Saturday.

" 'One hour shall be allowed at noon each day for meals, if the inspector so directs, but such hour shall not be counted as part of the time herein limited as respects their employment.

" ' The day of ten hours mentioned in this article shall not commence before six o'clock in the morning nor end after nine o'clock at night.

"3026. 'The inspector, for sufficient reasons given to him, and in order to make up lost time or to satisfy the exigencies of the trade, may, for a period not exceeding six weeks, extend the time of employment of children, girls and women to twelve hours in a day, or seventy-two hours in a week, provided that the day shall not commence before six o'clock in the morning, nor end after nine o'clock in the evening, in the following cases:

"(*a*) 'When any accident, which prevents the working of any industrial establishment, happens to the motive power of machinery, or

"(*b*) 'When from any occurrence beyond the control of the employer, the machinery or any part of the machinery of any industrial establishment cannot be regularly worked; or

"(*c*) 'When any stoppage occurs from any cause whatsoever.'

"It was maintained by the companies, and their opinion was shared by the factory inspector who appeared before the Commission, that this gave the company the right to so adjust the working hours on each day that the total working time in a week would not exceed 60 hours. Clearly such an interpretation gives the right should the employers decide to work only five days in the week, to make the hours 12 per day, or 15 per day, should it be decided to work only 4 days, a possibility which could never have been intended. The maximum working hours in any one day should be definitely stated and the statute should be so worded as to leave no doubt as to its intention.

GENERAL CONSIDERATIONS INVOLVED.

" In determining what the maximum number of working hours should be economic considerations alone demand that a full regard should be had for the effects of long and continuous employment, whatever its nature upon the constitution of women, and their place in the social economy of a nation. Excessive work bequeaths a legacy of weakness or disability to those who directly or indirectly are affected by it. In the upbuilding of a nation this is a factor which cannot be too constantly kept in mind.

"Similarly the employment of children and young persons, whether male or female, cannot be surrounded by too many safeguards. It is distressing to be obliged to record that though the minimum age at which children can be employed is fixed by the Quebec law at 14 years, several children were brought before the Commission from among those working in the mills who admitted that they had entered upon employment under the legal age. Some of these children were so immature and ignorant that they were unable to tell the year of their birth, or their age. One little girl did not know the meaning of the word ' holiday,' and when it had been explained to her, stated that the only holiday she had known were Christmas and Epiphany. She had never received a week's vacation.

"One or two of the children admitted that they knew their parents had made false declarations as to age, and that they had been told by their parents to say what was untrue, when questioned on the point.

"There can be no two views as to the attitude which should be assumed towards such a condition, nor as to the kind of legislation which it demands. The employment in factories of children under 14 years of age should be made absolutely impossible, and a law no less imperative requiring their attendance at school between the ages of 10 and 14 years should be enacted. In Massachusetts the law requires that a child must be 14 years of age, and a certificate is obtained from the clerk of the city as to his ability to read and write. If illiterate, he must be 16 before he can be employed, and children who wish to gain admission to a factory must first obtain a certificate of age and ability to read and write the English language from the school superintendent or member of a school committee. Some such arrangement which would remove from the parties interested in the contract whether parents or employers, the possibility of making or accepting false declarations, and as would place the responsibility as to age certificates upon those chosen representatives of the people, or officials whose duty it is to guard the welfare of the State, would seem to be the most effective manner of dealing with the situation. It is gratifying to be able to state that the heads of the companies concerned expressed themselves as much surprised at the

fact that child labour was being employed contrary to law, and took immediate steps to rectify this abuse. Mr. S. H. Ewing, the President of the Montreal Cotton Company, said he had inquired particularly to find out if there was any child labour in the mills, and that he was very much surprised to learn that there was; that if anything of the kind were going on, it was very much against his will and that of the Board of Directors. Mr. Simpson said that his company was careful to see that each child was obliged to bring a certificate from the parents or guardian, stating that he or she was at least 14 years of age, and that there were only two cases he knew of where children were under age, though there might be others where parents had given false certificates, and that in the two cases mentioned there were justifiable circumstances. It is unreasonable to suppose that any other than the most selfish and callous-hearted of individuals would knowingly permit an abuse of this kind to continue, and would not welcome such action on the part of the State as would put its continuance beyond the bounds of possibility. If Canada is to have a hardy and intelligent body of producers, on which primarily her industrial position among the nations of the world will depend, she cannot view with too much caution all those factors which go to the making of a nation's manhood, and of these none are of like importance to the health and well-being of the mother and the child. Opportunity for rest and recreation is the least that society can secure to those who are helping to carry the industrial burden, and this demands a limitation of the total hours of labour by day or week, an absolute prohibition of overtime, and a period of vacation in every year."

RELATIONS BETWEEN EMPLOYERS AND EMPLOYEES.

The Commissioner made the following suggestions with regard to the betterment of relations between employers and employees in the industry:—

"As to a plan whereby the relations between employers and employees in this industry may be improved and industrial differences between them averted, I would invite attention to a consideration of some such arrangement as came to my notice during the investigation of conditions in the United States, the effectiveness of which arrangement has been duly tested by the severe strain of the present year, and received the hearty commendation of both employers and employees. I mean the system of an automatic adjustment of wages based upon a joint agreement between employers and employees such as exists at Fall River between the Association of Employers and the Textile Council, an association representative of the several unions to which the operatives belong. This plan was worked out as a consequence of a large strike which took place four years ago, and was the outcome of a recognition on both sides of the folly of industrial war as a means of securing industrial peace. I cannot do better than quote from the Massachusetts *Labour Bulletin* of June and July, which sets forth the nature and workings of the arrangement in an article dealing with the reduction in wages of the present year. Incidentally, the article is also of great value as showing how parallel are conditions in the United States to conditions in Canada, and as showing that the recent reductions in wages in Canada which occasioned the strike of May last have not been due to any peculiar severity on the part of Canadian employers, or tariff or other special conditions, but have been part of a general trade depression in which this country, for obvious reasons, has had to share.

"At a conference held May 19 between committees of the Fall River Textile Council and the Cotton Manufacturers' Association to determine the scale of wages to be paid during the six months from May 26, 1908, to Novem-

ber 26, 1908, the margin figures of the preceding six months were gone over, and the resulting reduction in wages was computed to 17.94 per cent. This is the heaviest reduction that has ever been made at one time in the history of Fall River, the nearest approach to it being a reduction made September 11, 1893, amounting to 14.28 per cent.

"Yet on May 20, the Textile Council, representing officially and unofficially some 25,000 operatives. demonstrated the ability of this great body of workers to stand by their contract by accepting, without a dissenting voice, the report of the committee, which recommended that the reduction of wages resulting from the operation of the agreement in force between the organizations of mill employees and their employers be adopted.

"The wage agreement accepted on May 3, 1907, and now in force, provides:—

"Clause 1. That 21.78 cents per cut shall be the recognized standard price for a margin of 95 points based on the cost of eight pounds of middling upland cotton and the selling value of 45 yards of 28-inch 64 x 64 print cloth and 33.11 yards of 38½-inch 64 x 64. Quotations from New York Journal of Commerce shall be considered authority.

"Clause 2. Wage agreements shall be binding for six months, beginning the last Monday in May and November of each year, based on the average margin for the previous six months.

" Prices for weaving shall be as follows:—

"With a margin of 115 points. 23.96 cents; 110 points, 23.42 cents; 105 points, 22.87 cents; 95 points, 21.78 cents; 85 points, 20.69 cents; 80 points, 19.66 cents; 75 points, 18.68 cents; 72 1-2 points, 18 cents.

"Wages in all departments other than weaving shall be adjusted on the same basis; 23.96 cents, with a margin of 115, shall be the maximum; and 18 cents, with a margin of 72 1-2, shall be the minimum rate paid for weaving.

"Clause 3. If at any time either party to this agreement should desire to make a change, at least three months' notice shall be given by the party desiring the change prior to the expiration of the existing six months' contract.

"It can be said that the wage agreement has met and passed successfully its first real test. for the operatives have shown their faith in the fairness of the system, even though the results may be decidedly unfavorable to them, as in the present instance.

AUTOMATIC WAGE ADJUSTMENT.

" *This system of an automatic adjustment of wages* was carefully devised as a result of previous experiments, for the purpose of giving the operatives as high a rate of wages as business conditions would allow, and the success which the system has had in its first crisis argues well for the peaceful settlement of wage scales in Fall River, and it is to be hoped will result in the abolition of intermittent demands by operatives on the manufacturers and long resultant controversies.

" The praiseworthy spirit shown by the operatives in keeping their agreement and submitting to this heavy cut in their wages is reflected in the following extract from the report presented to the operatives by James Tansey, president of the Fall River Textile Council:—

" ' We, the members of the Textile Council, regret that such conditions have arisen which should call for the reduction in wages as stated in the agreement, and while we realize that the reduction is a steep one, we hope and feel that you will not lose sight of the fact that it is being taken from the highest rate of wages that has ever prevailed during the life of the Textile Council, and for many years previous to its existence. It is safe to say that

we can go back at least 35 years, and then only under the most exceptional conditions can a comparison be made.

" ' It should not be necessary to remind you that the rate of wages paid during the last 12 months is 10 per cent. higher than ever was paid in the city during our life as combined unions, and further, that it is 20 per cent. higher, with an exception of a period of about nine months a few years ago.

" ' With regard to the present agreement we do not nor have we ever taken and declared that it is a panacea for all difficulties existing between the employer and employee in our trade but we do declare emphatically and without reserve that it is and has proved to be the best agreement for the operatives that was ever accepted by the employers for the control and regulation of the rise and fall in wages, and further assert, for reasons stated above, that it is well worthy of a trial of experience and as a guide in dealing with such questions in the future.

" ' Until such time that we see that a change is necessary in the margin scale, we say to our members that this agreement should be honourably lived up to, as it was entered into honourably by a vote of acceptance and endorsed by all of the unions at their general meetings before being signed by the representatives of the respective associations contracted.

" ' Even though the reduction in wages is greater under the agreement than was anticipated by its most ardent supporters, and which we regret we are not prepared to declare that it is a failure, because owing to the unfortunate trade conditions previously referred to, which suddenly and unexpectedly worked havoc with our industry, we do not believe it has had a fair trial; and until such time that it has, the least that can be expected is that judgment should be suspended, and hasty action upon our part be rejected.

" ' The only comparison that we can draw to compare with present conditions is that which existed in 1898, 10 years ago, when the market got down about 50 cents, and we were obliged to accept reductions in wages which brought the weaver down to 16 per cut, and all other departments in proportion. The margin to-day is but 57.61 cents, and it has been between the fifties and sixties for nearly two months, and the price per cut under the reduced rate is 19.66 cents per cut, with operatives in all other departments in proportion, a matter of about 20 per cent., a higher rate than prevailed under similar conditions in 1898, to say nothing of other improved conditions.

" ' Again repeating our regret for the reduction of wages that goes into effect Monday morning, brought about through conditions over which neither employer nor employee has control, we bring these matters to your attention, so that you can deliberate on the conditions and situation with more intelligence, and give to it that fair, just and conservative consideration that all such important subjects of its kind are entitled.'

" Following the announcement of the new rate, a notice of a reduction of 17.94 per cent. in the wages of the 5,000 operatives in the cotton mills of the Fall River Iron Works Co. was posted at that plant. Other cotton mills throughout New England reduced wages in April, the average reduction being about 10 per cent.

" For a short period after the reduction went into effect, the demand for cotton cloth warranted the manufacturers running their mills on full time, and as a result, the actual weekly earnings of the operatives were greater than under the former rate of wages. These favourable conditions did not continue, however, and the mills were obliged to curtail, thereby decreasing the earnings of the operatives considerably.

" The sliding scale agreement is between the Textile Council, representing the operatives, and the Cotton Manufacturers' Association, representing the manufacturers, so that the agreement can only be terminated by a notice from either of the two contracting parties.

"At Fall River, where the reduction of 18 per cent. took place, there are over fifty mills employing in all about 30,000 operatives. In Lowell, where the reduction was, as in the Province of Quebec, 10 per cent., there are 7 large mills employing about 15,000 operatives."

PROFIT SHARING AT BOURNE.

"At the Bourne mills, which are among the largest in Fall River, a profit-sharing arrangement is in force, which I was informed by the manager had worked to the great advantage of employers and employees alike. Inasmuch as it is one of several methods which might be adopted to make more apparent the unity of interest between employer and employed, it also may, I think, be commended as worthy of adoption by employers of labour in this country, and as a means of harmonizing the relations between the two great industrial classes. The circular issued by the Treasurer of Bourne Mills in December, 1906, breathes a spirit of consideration for the welfare of operatives, which, if generally followed, would do more than anything else to avoid the possibilities of friction and to promote the interests common to both. This circular is as follows:—

"'FALL RIVER, MASSACHUSETTS,

"'December 24, 1906.

"'To the Employees of the Bourne Mills:

"'You will receive herewith the thirty-fourth semi-annual dividend upon wages. Profit-sharing will be continued another six months. I feel myself happy to congratulate you upon the recent advance in wages, which placed Fall River again upon record as paying the highest wage known to the cotton industry in all the world. I sincerely hope there may never be another reduction of wages here. There ought not to be. The business should be adjusted to this schedule.

"'I trust this may be the merriest Christmas ever known here. May all try together, manufacturers and operatives, to make Fall River the most attractive spot on earth for textile wage-earners. Having this thought in mind, the board of directors of the Bourne Mills has unanimously authorized me to announce to you the experiment of a vacation week in August, 1907. While I have not made it a habit to take a vacation myself (except a short trip to Europe in 1900), I can see that in these strenuous days, it is becoming more and more a wholesome practice.

"'The mills will close Saturday noon, August 24, and re-open Tuesday morning, September 3, thus allowing you ten days of rest and recreation.

"'In lieu of regular pay, the directors have also unanimously authorized me to offer you an extra dividend upon your wages, payable just before the vacation, to the amount of fifty per cent. of the average weekly wages earned by each one of you, computed from the record of your wages during the present profit-sharing term closing next June.

"'Like all dividends upon wages, the August vacation dividend will be paid to you upon the single condition of continuous faithful efficient service. It will be in addition to the regular fourth of July dividend.

"'Sincerely yours,

"'(Sgd.) GEO. A. CHACE,
"'*Treasurer.*"

CONCLUSIONS.

"Briefly summarized, the main conclusions of the Commissioner are as follows:—

" 1. The 10 per cent. reduction in wages in the cotton mills of Quebec which occasioned the strike and lockout of May of the present year, was not due to any peculiar severity on the part of Canadian employers, or to tariff, or other special conditions, but was an economic consequence of the general trade and financial depression in which Canada has shared in common with the United States and Great Britain, and which has affected the cotton industry in all parts of the world;

" 2. That similar and even greater reductions in wages have taken place in the cotton mills of the United States, and a greater shortage of work has been occasioned among the operatives in that country, as well as England;

" 3. That the lot of many of the operatives in the cotton mills during the present year has been a particularly hard one, both because of a considerable shortage of work and a considerable reduction in the rate of wages paid;

" 4. That the present depression is temporary, and that the employers have promised a restoration of the former scale of wages when trade improves;

"5. That the strike in the Quebec mills was unwise and ill-timed, and would not have taken place had the constitution of the labour organization been strictly followed;

" 6. That the manner in which notice of the intended reduction in wages was given was an aggravating circumstance under the then existing conditions, a longer time and greater opportunity for conference between the parties might have avoided it;

" 7. That personal enmities and ambitions on the part of certain of the leaders were responsible for dissensions among the operatives which were prejudicial to their common interests;

" 8. That the industry as a whole and the interests of both employers and employees have suffered much unnecessary loss in consequence of the exceptionally large number of strikes which have taken place during recent years;

" 9. That some of the strikes which have taken place would not have occurred but for the organization that existed among the workers, and methods adopted by some of the leaders, but that in other instances, organization has been the means of avoiding disputes, and, broadly viewed, has (at least, up to the spring of the present year) resulted in a betterment of the economic conditions of the operatives as a whole;

" 10. That the attitude of the employers has not on the whole been averse to organization among the employees, though individuals have endeavoured to prevent it; that to entitle themselves to that confidence on the part of the employers which will ensure a willingness to co-operate with them, the unions must secure harmony within their own ranks, and adopt a more conservative policy towards those with whom they have business dealings;

" 11. That the hours of labour of women and young persons in the cotton mills are too long, and should be shortened;

" 12. That the present law regulating the hours of employment should be amended so as to leave no doubt as to its intention, and so as to secure against possible injustice to those on whose behalf it has been enacted;

" 13. That the law respecting the employment of child labour has been evaded, and should be so amended as to provide against possible infractions in the future, and that in this connection a special responsibility devolves upon shareholders and all other persons who profit by the results of such labour;

"14. That industrial peace might be preserved and the friendly relations between employers and employees promoted:

"(*a*) by the adoptions of joint agreements between employers and operatives with some system of automatic adjustment of wages;

"(*b*) by each of the parties being required to give at least one months's notice before attempting to enforce any contemplated change in wages, hours, or other important condition of employment;

"(*c*) by the adoption of permanent Boards of Conciliation, composed of representatives of employers and operatives, to which Boards all matters in dispute should be referred for conference and adjustment before resort is had to a lockout or strike; and

"(*d*) by the adoption of some form of labour co-partnership in which the joint interests of employers and employees is made apparent to both parties."

APPENDIX RE STRIKES AND LOCKOUTS SINCE 1900.

The report contained as an appendix a tabular statement showing the locality, date, name, result, number of employees affected, loss of time in working days, in the case of every strike occurring in the cotton industry since 1900. This was prefaced by the following statement:—

STRIKES AND LOCKOUTS SINCE 1900.

"If the series of disputes which began on May 4, 1908, be considered as separate strikes, there have been 40 strikes and lockouts in the cotton industry in the Province of Quebec from February, 1900, to June, 1908, inclusive. Of these, 9 occurred at Valleyfield, 8 at Magog, 7 at Hochelaga, 6 at Montmorency Falls, 5 at St. Henri, 3 at St. Anne's, 1 at Montreal and 1 at Hochelaga and St. Anne's.

"In 32 of these disputes the loss of time to the employees amounted approximately to 201,090 working days. In the remaining 8 disputes, the data was not sufficient to afford an estimate of the lost time.

"An analysis of the causes that led to the strikes and lockouts shows that in 21 cases, over half the total number, questions of wages were involved. In 10 cases, the employees had demanded an increase in wages, coupled with other demands in two cases, and in nine they opposed a reduction of wages. On 5 occasions strikes were declared in protest against the discharge of employees, and on two occasions the French operatives objected to the employment of English persons. There were 4 sympathetic strikes and 2 lockouts during the past eight years.

"With regard to the results of these trade disputes, the employers were successful in 26 cases out of 40, and the employees were successful in only 9 cases, while compromises were reached in the remaining 5. The records in the Department of Labour show that in the disputes involving all industries during the years from 1901 to 1906 inclusive the employers were successful in 244 cases out of a total of 692, while the employees were successful in 214 cases. This indicates that a greater proportion of strikes in the cotton industry failed in their object, than of strikes in all the industries in Canada combined."

The report was accompanied by statistical tables relating to the strikes and lockouts in the cotton industry in Quebec from February, 1900, to June, 1908, inclusive, showing in the case of each dispute the locality in which it occurred, the classes and number of employees affected, the date of the commencement and termination, the approximate number of working days lost, and the cause and result.

XI.—FAIR WAGES ON PUBLIC CONTRACT WORK.

During the past year 315 Fair Wage Schedules have been prepared by the Fair Wages Officers of the Department for insertion in public contracts. The rates of wages fixed in contracts containing these Fair Wages Schedules are based on the rates prevailing in the locality in which the work is to be done and where there are no such prevailing rates obtainable then on what might be considered a fair and reasonable rate, due regard being had to the cost of living in the localities concerned. The number of such Fair Wages Schedules which the Department has been called upon to prepare has very largely increased and the number for 1907-08 is 93 in excess of the number for the year 1906-07 and about double the number called for two and three years ago. Of the total of 315 of these schedules prepared last year, 162 were for the Department of Railways and Canals, an increase of 65 over the preceding year; 122 were for the Department of Public Works, an increase of 27; 18 were for the Department of Marine and Fisheries, a decrease of 5; 11 were for the Department of Militia and Defence, the same number as were framed for that Department in the preceding year. Two were for other branches of the public service.

The total number of Fair Wages Schedules prepared by the Department since its inception in 1900 is 1,600, of which almost one-half have been for the Department of Railways and Canals and over one-third for the Department of Public Works.

The work of this branch of the Department of Labour is based on what is known as the "Fair Wage Resolution" of the House of Commons, which was passed in 1900. This resolution is in the following terms:—

> "Mr. Mulock—That it be resolved that all Government contracts should contain such conditions as will prevent abuses, which may arise from the sub-letting of contracts, and that every effort should be made to secure the payment of such wages as are generally accepted as current in each trade for competent workmen in the district where the work is carried out, and that this House cordially concurs in such policy and deems it the duty of the Government to take immediate steps to give effect thereto.
>
> "It is hereby declared that the work to which the foregoing policy shall apply includes not only work undertaken by the Government itself, but also all works aided by grant of Dominion public funds."

In addition to the preparation of these Fair Wages Schedules, the statistics compiled by the Fair Wages Officers in respect of wages and hours and conditions of labour are in frequent demand for other purposes. During the past year the Department has received from many quarters requests for information in regard to prevailing rates of wages, hours and conditions of employment of Canadian workmen. Among these requests may be mentioned the following:—The Consul General for Belgium, in Ottawa, regarding rates of wages and hours of labour in the several branches of employment throughout Canada; Mr. W. A. Mackinnon, Canadian Trade Commissioner at Bristol,

England, as to the rates of wages paid to seamen and firemen employed on steamers on the Great Lakes; Mr. David Kamisky, of Brooklyn, N.Y., for information regarding rates of wages and conditions of the working classes in Canada for use in a debate on the subject of "Reciprocity with Canada" to decide the championship of the Greater New York Interscholastic Debating League; the Law Department of the City of Toronto, for information in regard to the Fair Wages Resolution of the House of Commons in connection with the proposed insertion of a similar condition in Toronto civic contracts; Mrs. Florence Kelley, General Secretary of the International Consumers' League, New York, requesting information respecting the results of Fair Wages legislation in Canada; Mr. A. E. Fripp, M.L.A., Ottawa; regarding schedules prepared under the Fair Wages Resolution; Mr. G. E. Carpenter, Transportation Manager of the Winnipeg Jobbers' and Shippers' Association, requesting information regarding wages paid to railway employees in Ontario, Manitoba, Saskatchewan and Alberta; Reverend Dr. Sutherland, Toronto, General Secretary of the Foreign Department of the Missionary Society of the Methodist Church, requesting information concerning wages, cost of living, etc.; D. Levy & Sons, Limited, Montreal, respecting wages paid in the woollen mills of Canada; A. D. Gunn, Sydney, N.S., regarding rates of wages paid and cost of living in the various centres of population of Canada; the General Manager of the Office Specialty Manufacturing Company, Toronto, regarding rates of wages in the printing and allied trades; Mr. E. H. Armstrong, K.C., Yarmouth, N.S., regarding information bearing on the subject of the eight-hour day; R. Stephenson, of Winnipeg, regarding rates of pay for labour engaged in construction and operating work on the Grand Trunk Pacific Railway; Geo. G. Mercure, Secretary Treasurer of the Canadian Federation of Labour, regarding wages paid to employees of electric railways in the cities of Montreal, Ottawa, Toronto, and Winnipeg; the Buffalo Pitts Company, of Buffalo, U.S.A., regarding wages paid in various trades in Canada; Paul N. Kellogg, Editor, "Charities," New York, N.Y., regarding rates of wages and hours of labour in various branches of employment throughout Canada; Christian Sivertz, Secretary of the Trades and Labour Council, of Victoria, B.C., in acknowledging the receipt from the Department of Fair Wage schedules for various classes of labour in the cities of Halifax, Montreal, Toronto, Winnipeg, Vancouver and Victoria, observed that he found the work done and the information given by the Department of Labour of ever-increasing importance and usefulness.

During the year also supplies were furnished to the Post Office Department to the amount of $129,333.92 under conditions designed to ensure the payment of fair wages and reasonable hours to the workmen employed. In all these contracts those tendering were required to submit a statement of the rates of wages which they agreed to pay and the number of hours which the workmen would be required to work. The more important contracts of the past year in the Post Office Department were as follows:—Making up and supplying articles of official uniforms, $42,618.33; supplying mail bags, $31,005.21; repairing mail bags, $14,823.01; supplying stamping material, inclusive of making and repairing pads, also wooden boxes and post marking

and cancelling ink, $11,956.10; making and repairing material, dating and other stamps and type, and brass crown seals, $9,347.04; repairing mail bags and supplying mail bag fittings, $9,205.10. In all these and other contracts by the Post Office Department where the rates named by the tenderers for hours and wages appeared to the Department of Labour unfair, the tenderer was informed of the rates which the Department of Labour regarded as fair and reasonable and no contract was let without assurance that fair and reasonable rates would be accorded to all workmen and workwomen concerned.

The following tables show the number of schedules arranged by Provinces, prepared by the Fair Wages Officers during the fiscal year 1908-09, also the number of schedules arranged by years, prepared since the establishment of the Department:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 3.

STATISTICAL TABLE SHOWING BY PROVINCES THE "FAIR WAGES" SCHEDULES PREPARED BY THE DEPARTMENT OF LABOUR, FOR DEPARTMENTS OF THE GOVERNMENT DURING THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Department of Government	Nova Scotia	New Brunswick	P. E. Island	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	Yukon	Total
Public Works	17	23	8	29	34	4	4	6	.....	125
Railways & Canals	23	30	19	40	42	2	4	3	.....	163
Marine & Fisheries	10	1	2	1	3	1	.....	.....	.....	18
Militia and Defence	1	.....	.....	1	4	2	1	2	.....	11
Miscellaneous	.....	.....	.....	.....	1	.....	2	.....	.....	3
Total	51	54	29	71	84	9	11	11	.....	320

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 4.

STATISTICAL TABLE OF "FAIR WAGES" SCHEDULES PREPARED BY YEAR BY THE DEPARTMENT OF LABOUR FOR DEPARTMENTS OF THE GOVERNMENT DURING THE PERIOD JULY, 1900, TO MARCH, 1907, INCLUSIVE.

	1900-1	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1098-9	Total
Department of Public Works	63	13	11	116	72	41	53	95	125	589
" Railways and Canals	....	1	50	89	153	95	84	93	163	728
" Marine and Fisheries	.....	17	12	18	21	8	10	23	18	127
Other Departments	.....	.....	.....	.....	2	3	3	11	14	33
Total	63	31	73	223	248	147	150	222	320	1477

CONTRACTS AWARDED DURING 1908-9 CONTAINING FAIR WAGES SCHEDULES.

The following is a list of the contracts awarded by the several departments of the Government for which fair wages schedules have been requested, the nature of the work contracted for, the locality in which it was to be performed, the dates at which the contracts were awarded, the amounts of the contracts, and the page and number of the *Labour Gazette* in which copies of the several schedules appeared:—

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES WERE REQUESTED BY THE DEPARTMENT OF PUBLIC WORKS AND PREPARED BY THE DEPARTMENT OF LABOUR, SHOWING ALSO AMOUNT OF CONTRACT, DATE AT WHICH AWARDED AND WHERE FAIR WAGES SCHEDULES PUBLISHED, FOR THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Nature of Work *	Locality.	Date at which schedules supplied by Department of Labour.	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published	
				$ cts.	Vol.	Page.
Extension to Drill Hall	Quebec, Que	April 18	Nov. 26, 1908	45,895 00		
Wharf, warehouse and roadway	Port Hastings, N.S	" 21	Sept. 28, 1908	10,550 00	9	440
Heating apparatus in Drill Hall	Hamilton, Ont	" 22	Aug. 21, 1908	12,880 00	9	339
Construction of a breakwater	Cobourg, Ont	" 25	Aug. 18, 1908	139,000 00	9	328-9
Public building	Vernon, B.C	May 4	Not awarded			
" "	Welland, Ont	" 4	Sept. 16, 1908	26,526 00	9	440
" "	Esquimault, B.C	" 6	Not awarded			
" "	Victoria, B.C	" 6	May 26, 1908	14,268 00		
" " Armoury	Joliette, Que	" 20	Feb. 15, 1909	13,500 00		
" " "	Meaford, Ont	" 20	Not awarded			
" " Post Office	Glencoe, Ont	" 20	Sept. 11, 1908	16,238 00	9	440
Alterations, etc., to Public Building	Fort William, Ont	" 30	Nov. 19, 1908	7,450 00	9	622
Armoury Building	Joliette, Que	June 2	Feb. 15, 1909	13,500 00		
Public Building	Emerson, Man	" 2	Nov. 20, 1908	23,500 00	9	622
" "	Leamington, Ont	" 2	Dec. 7, 1908	15,230 00	9	771
Repairs to Dixon's Wharf	Grand Manan, NB	" 4	Dec. 23, 1908	4,850 00		
Public building	Whitby, Ont	" 24	Oct. 16, 1908	22,000 00	9	514
" "	Hillsborough, N.S	" 24	Not awarded			
" "	Hillsborough, N.S	July 2	Not awarded			
Construction of wharf	McPherson's Cove, N.S	" 10	Sept. 19, 1908	3,973 00	9	513
" dam	Latchford, Ont	" 15	Not awarded			
Armoury building	Durham, Ont	" 15	Oct. 2, 1908	6,000 00	9	513
Extension to wharf	St. John, N.B	" 24	Nov. 24, 1908	287,633 00	9	622-3
Repairing canal washout	Cornwall, Ont	" 28	Not awarded			
Construction of dam (further rates)	Latchford, Ont	" 29	Not awarded			
Heating apparatus in P. O	Montreal, Que	Aug. 10	Oct. 22, 1908	18,407 00		
Fittings for Drill Hall	Toronto, Ont	" 10	Not awarded			
Breakwater and dredging	Port Burwell, Ont	" 21	Not awarded			

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES, &c. – Continued.

Nature of Work.*	Locality.	Date at which schedules supplied by Department of Labour.	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
				$ ct.	Vol.	Page.
Public building	Georgetown, P.E.I.	Aug. 22	Oct. 20, 1908	3,000 00	9	514
Addition to public building	Ottawa, Ont. (Experimental Farm)	" 22	Oct. 30, 1908	12,000 00	9	622
Public building	Quebec (St. Roch), Que.	" 24	Feb. 6, 1909	47,711 00	9	999
" "	Montreal (Pt. St. Charles), Que.	" 24	Dec. 2, 1908	31,600 00	9	770
Construction of a wharf	Whitney Pier, N.S.	" 25	Oct. 10, 1908	9,980 00	9	513-4
Public building	Estevan, Sask.	" 26	Feb. 21, 1909	19,850 00	9	1000
Breakwater and dredging	Rondeau, Ont.	" 26	March 26, 1909	229,000 00		
Public building	Chilliwhack, B.C.	" 28	Not awarded			
" "	Parkhill, Ont.	" 28	Dec. 7, 1908	13,504 00	9	770-1
Breakwater	Long Point, P.E.I.	Sept. 12	Not awarded			
Extension to breakwater	Tignish Harbour, P.E.I	" 15	June 4, 1909	23,952 00		
Cribwork groynes	Port Stanley, Ont.	" 15	Feb. 1, 1909	6,535 00	9	999
Public building	Battleford, Sask.	" 16	Not awarded			
" "	Megantic, Que.	" 17	Not awarded			
Cribwork wharf	Vernon Point, P.E.I.	" 18	Dec. 7, 1908	7,300 00	9	771
Construction of wharf	St. Andrews, N.B	" 19	March 8, 1909	15,900 00		
Cribwork breakwater	Blue Rocks, N.S.	" 19	Jan. 11, 1909	3,878 00	9	880-1
Construction of wharf	Tadousac, Que.	" 19	Not awarded			
Extension to wharf	St. Alexis, Que.	" 19	Not awarded			
Construction of coal dock	Three Rivers, Que.	" 19	Not awarded			
Crib and pile work and excavation	Naufrage Pond, P.E.I.	" 21	Feb. 2, 1909	11,995 00	9	999
Timber cribwork wharf	Riviere Blanche, Que.	" 22	Dec. 18, 1908	6,300 00	9	772
Breakwater, timber cribwork with stone and earth approach	West Advocate, N.S.	Sept. 22	Not awarded			
Extension to wharf	Chewin, N.S.	" 22	Dec. 16, 1908	4,294 00	9	771
Enlargement of cribwork block	Ste. Emelie, Que.	" 25	Not awarded			
Construction of drill shed	Quebec, Que.	" 28	Nov. 26, 1908	45,895 00	9	623
Breakwater and wharf	Lorneville, N.B.	" 29	Feb. 10, 1909	27,000 00	9	999-10
Repairs to wharf	Sturgeon, P.E.I.	" 29	Dec. 21, 1909	4,100 00	8	772
Construction of wharf	White Head, N.B.	" 30	Dec. 23, 1908	4,850 00	9	772
" "	Burton, N.B.	" 30	Not awarded			
Extension to east pier	Quaco, N.B.	" 30	Dec. 28, 1908	32,900 00	9	772
Construction of wharf	Cumming's Cove, N.B.	" 30	Not awarded			
" "	Lower Jenseg, N.B.	Oct. 3	Not awarded			

Extension to wharf	St. André, Que	"	3	Not awarded			
Cribwork breakwater	Seal Cove, N.B	"	5	March 16, 1909	29,000 00		
Pile protection pier	Winnipeg Beach, Man	"	5	Not awarded			
Cribwork breakwater	Minasville, N.S	"	6	Feb. 23, 1909	7,975 00	9	1000
Extension to breakwater	Devil's Island, N.S	"	6	Not awarded			
" cribwork	Providence Bay, Ont	"	6	Not awarded			
" "	Harvey Bank, N.B	"	6	Dec. 21, 1908	3,949 00	9	772
Cribwork wharf	Wellspool, N.B	"	6	Jan. 27, 1909	22,248 00	9	881
Extension to wharf	Pelee Island, Ont	"	7	Dec. 31, 1908	4,800 00	9	880
Cribwork "	Cap St. Ignace, Que	"	9	Dec. 15, 1908	13,913 00	9	771
" "	Pointe a Rousseau, Que	"	9	Not awarded			
" "	Scotchtown, N.B	"	10	Not awarded			
Public building	Cranbrook, B.C	"	13	Not awarded			
" "	Revelstoke, B.C	"	13	Not awarded			
Addition to public building	Moncton N.B	"	13	Not awarded			
Public building	Dresden, Ont	"	13	Not awarded			
" "	Marieville, Que	"	13	Not awarded			
Addition to P. O. Building	Kingston, Ont	"	13	Not awarded			
" "	Goderich, Ont	"	13	Not awarded			
Cribwork wharf	Natashquan, Que	"	15	Not awarded			
" "	Partridge Island, N.B	"	15	Not awarded			
" "	Michipocoten, Ont	"	15	Not awarded			
Extension to breakwater	Tennycape, N.S	"	27	Not awarded			
" wharf	Ste. Anne de la Pocatiére, Que	Nov.	2	Not awarded			
Concrete and cribwork pier	Colchester, Ont	"	2	Not awarded			
Extension to wharf	Kamouraska, Que	"	5	Not awarded			
Work at Royal Military College	Kingston, Ont	"	6	Not awarded			
Cribwork wharf	Franklyn Point, P.E.I	"	11	Not awarded			
" "	Morell River, P.E.I	"	14	Not awarded			
Breakwater and dredging	Matane, Que	"	14	Not awarded			
Extension to wharf	Miscou, N.B	"	14	Not awarded			
Canal and pilework guide piers	MacLeod, Alta	"	14	Not awarded			
Pilework wharf	Angers, Que	"	27	Not awarded			
Extension to wharf	Sault Ste. Marie, Ont	Dec.	2	Not awarded			
Cribwork wharf	Westport, N.S	"	4	Not awarded			
" breakwater	Duncan's Cove, N.S	"	11	Not awarded			
" "	Cape Bauld, N.B	"	11	April 20, 1909	32,890 00	9	1261
Alterations to Dominion Building	Lethbridge, Alta	"	12	Not awarded			
Cribwork breakwater	Dublin Shore, N.S	"	19	Not awarded			
Dredging concrete and pilework revetment wall	Owen Sound, Ont	"	23	Not awarded			
		1909					
Construction of wharf	Bic, Que	Jan.	6	Not awarded			
" breakwater	Little River, N.S	"	6	Not awarded			
Concrete superstructure and breakwat r	Port Hope, Ont	"	9	Not awarded			
Extension to breakwater	Hampton, N.S	"	12	Not awarded			
Heating apparatus, Examining Warehouse	Winnipeg, Man	"	14	Not awarded			
Cribwork breakwater	Percé, Que	"	15	Not awarded			

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES, &c.—Continued.

Nature of Work.*	Locality.	Date at which schedules supplied by Department of Labour.	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
		1909		$ ct.	Vol.	Page.
Extension to wharf	Grande Rivière, Que.	Jan. 15	Not awarded			
Cribwork wharf	Scotchtown, N.B.	" 16	Not awarded			
" "	Shediac, N.B	" 20	Not awarded			
Pilework breakwater	Sorel, Que	" 20	Not awarded			
Cribwork wharf	New Mills, N.B.	" 22	Not awarded			
Extension to cribwork	Pink Rock, N.B.	" 22	Not awarded			
Cribwork wharf	Sackville, N.B.	" 30	Not awarded			
Cribwork concrete wharf	Gravenhurst, Ont.	" 30	Not awarded			
Cribwork pier	Ste. Croix Lotbinière, Que	" 30	Not awarded			
Heating apparatus and electric wiring	Ottawa, Ont.	Feb. 23	Not awarded			
Cribwork addition to wharf	Cacouna, Que	" 26	Not awarded			
Concrete retaining wall	Hamilton, Ont	" 26	Not awarded			
Cribwork and pile wharf	Liscomb, N.S	March 5	Not awarded			
Construction of wharf	Spanish Ship Bay, N.S.	" 5	Not awarded			
Addition and alterations to Post Office	Toronto, Ont.	" 13	Nov. 30, 1907	19,694 00		
" " "	Winnipeg, Man	" 13	Not awarded			
Construction of wharves	Fort William, Ont	" 16	Not awarded			
" wharf	Grand Métis, Que	" 22	Not awarded			

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES WERE REQUESTED BY THE DEPARTMENT OF RAILWAYS AND CANALS, AND PREPARED BY THE DEPARTMENT OF LABOUR, ALSO AMOUNT OF CONTRACT, DATE AT WHICH AWARDED AND WHERE FAIR WAGES SCHEDULE PUBLISHED, FOR THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Nature of Work. *	Locality.	Date at which schedule supplied by Department of Labour.	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
				$ cts.	Vol.	Page
‡Construction of a line of Railway	Union Bay to Alberni, B.C.	April 6	May 27, 1909	Gen'l clause ins.	8	1461-2
" " Concrete platform	Amherst, N.S.	" 6	Oct. 24, 1908	Schedule rates.	9	516
" " " "	Antigonish, N.S.	" 7	Oct. 24, 1908	Schedule rates.	9	516
" " Station Building	Portage, P.E.I.	" 13	†			
" " " "	West Devon, P.E.I.	" 13	†			
" " " "	St. Nicholas, P.E.I.	" 13	July 25, 1908	Schedule rates.	9	189
" " " "	McNeil's Mill, P.E.I.	" 13	July 25, 1908	Schedule rates.	9	189
" " " "	Perth, P.E.I.	" 13	July 25, 1908	Schedule rates.	9	189
" " " "	Selkirk, P.E.I.	" 13	July 25, 1908	Schedule rates.	9	189
" " " "	Bell River, P.E.I.	" 13	July 25, 1908	Schedule rates.	8	189
Removal of Slides Nos. 1 and 2	Welland Canal, Ont.	" 15	May 21, 1908	65 & 45 c. per yd.	8	1461
Stores and Office Buildings	Riviere du Loup, Que.	" 23	Nov. 23, 1908	24,475 00	9	6234
Heating system in Service Bldg.	Chaudiere Junction, Que.	" 23	Aug. 28, 1908	2,774 00	9	330
Power House and Chimney	Charlottetown, P.E.I.	" 23	Too late for present report			
Remodelling Station and Freight Shed.	Doaktown, N.B.	" 23	Nov. 20, 1908	1,335 00	9	624
" " " "	Zionville, N.B.	" 23	Oct. 23, 1908	825 00	9	516
" " " "	Cross Creek, N.B.	" 23	Dec. 10, 1908	1,100 00	9	774
Dwelling for Agent	Campbellton, N.B.	" 23	Not yet prepared			
Oil House	"	" 23	Sept. 28, 1908	1,150 00	9	441
Baggage and Office Building	"	" 23	Not yet prepared			
Foot Bridge	Riviere du Loup, Que.	" 27	June 26, 1908	1,620 20	9	70
Extension of Freight Shed, etc.	Pugwash, N.S.	" 28	Oct. 15, 1908	1,800 00	9	515
Telegraph Building	Halifax, N.S.	May 6	Oct. 17, 1908	1,100 00	9	515-6
Freight Shed	Beaver Brook, N.B.	" 8	Nov. 2, 1908	750 00	9	624
Dredging Holland River Div.	Section I, Trent Canal, Ont.	June 1	Not yet prepared			

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.
‡ $3,200 per mile not exceeding $6,400 per mile.
† No reports received from the Department of Railways & Canals.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES, &c. Continued

Nature of Work.*	Locality.	Date at which schedule supplied by Department of Labour	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
				$ cts.	Vol.	Page.
Dwelling for Agent	Ste. Rosalie, Que	June 4	Aug. 8, 1908	1,880 00	9	329
Brick Power House	Halifax, N.S	" 8	Oct. 5, 1908	6,490 00	9	515
Waterworks on I.C.R	St. Charles Junction, Que	" 10	Not yet prepared			
" "	Campbellton, N.B	" 10	Not yet prepared			
" "	Little Metis, Que	" 10	Not yet prepared			
" "	Mulgrave, N.S	" 10	Dec. 22, 1908	Schedule rates.	9	773
Construction of a highway	Ste. Rosalie, Que	" 11	By day labour			
Engine House and Freight Shed	Loggieville, N.B	" 15	†			
Electric wiring of Freight Shed	St. John, N.B	" 15	Feb. 18, 1909	832 00	9	1001
Waterworks for I.C.R	St. Apollinaire, Que	" 20	†			
Widening of entrance of Welland Canal	Port Colborne, Ont	" 25	Aug. 24, 1908	$3.50 cts. yard.	9	329
Extension to Freight Shed	Souris, P.E.I	" 29	†			
Removal of west Pier of Canal	Port Maitland, Ont	July 11	Sept. 20, 1908	Schedule rates.	9	440
Electric wiring in Shops	Charlottetown, P.E.I	" 18	Not yet prepared			
Freight Shed	Bathurst, N.B	" 22	Nov. 2, 1908	3,977 00	9	624
Railway Buildings	Carmel, Que	" 22	Not awarded			
" "	Lavergne, Que	" 22	Not awarded			
" "	Daveluyville, Que	" 22	Not awarded			
Hot water heating System	Oxford, N.S	" 22	Feb. 12, 1909	990 00	9	1000-1
Freight Shed	Marysville, N.B	" 23	Not yet prepared			
Repairing washout	Cornwall Canal, Ont	" 28	Sept. 15, 1908	Schedule rates,	9	440
Waggon valves for Locks and Weirs on Trent Canal	Trenton, Ont	Aug. 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Glen Miller, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Frankford, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Glen Ross, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Head of Bradly Bay, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Campbellford, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Middle Falls, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Healey Falls, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Hastings, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	514-5
" " " "	Rosedale, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	515
" " " "	Lock No. 8, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	515
" " " "	Lock No. 9, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	515
" " " "	Lock No. 10, Ont	" 1	Oct. 5, 1908	Schedule rates.	9	515

Line of Railway	‡Campbellton to Grand Falls, N.B.	"	4	Aug. 24, 1908	General clause	9	330
Construction of a Dock on Canal	Welland, Ont	"	13	Dec. 2, 1908	Schedule rates.	8	775
Raising of I.C.R. tracks, etc	Pugwash, N.S	"	17	†			
Extension of Freight Shed	St. Romuald, Que	"	17	Nov. 23, 1908	400 00	9	624
Erection of Car repair Shops	Chaudiere Junction, Que	"	18	Dec. 22, 1908	8,350 00	9	772
Extension of Freight Shed	St. Eloi, Que	"	18	†			
Construction of a Shelter	Scoudouc, N.B	"	19	†			
Line of Railway	Three Rivers to Grand Mere, Que	"	20	Oct. 2, 1908	‡	9	515
Station Building	Mackenzie, Que	"	25	Dec. 19, 1908	2,460 00	9	773
Three Steam Boilers for Power House	Charlottetown, P.E.I	"	25	July 4, 1908	17,450 00	9	441
Improvements to Station Building	Iona, N.S	"	25	By day labour			
Steel highway drawbridge	Glen Miller, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
" " " "	Frankford, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
" " " "	Glen Ross, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
" " " "	Green Lane, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
" " " "	Yonge Street Trent Canal, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
" " " "	2nd Concession Road, Ont	"	28	Oct. 10, 1908	Schedule rates.	9	515
Railway Bridge over Canal	Glen Ross, Ont	"	28	†			
Highway and Cribwork	Truro, N.S	Sept.	5	Dec. 10, 1908	Schedule rates.	9	774
Smokestack on Engine House	St John, N.B	"	12	Dec. 24, 1908	118 75	9	773
Freight Shed	St. Cyrille, Que	"	12	Jan. 12, 1909	1,995 00	9	882
Extension of Freight Shed and Wharf	Souris, P.E.I	"	16	April 1, 1909	2,000 00	0	1262
Railway from Arundel to	Hartwell, C.N.R., Que	"	18	Revote from 1907	General clause.		
Railway from Montfort & Gatineau to	St. Jerome, Que	"	18	Revote from 1907	General clause.		
Widening of Lachine Canal	St. Henri, Que	Sept.	18	†			
Steam boiler for I. C. R	Newcastle, N.B	"	18	Oct. 20. 1908	1,850 00	9	516
Extension to Wharf for P. E. I. Ry	Charlottetown, P.E.I	"	22	Sent out for execution			
Spur line of Ry	Petit Rocher Station, N.B	"	28	Not yet prepared			
Construction of Section No. 7 Trent Canal	Rice Lake Division, Ont	"	28	Jan. 4, 1909	Schedule rates.	9	881
Line of Railway from George River to	Sydney Mines, N.S	"	29	Not yet prepared	General clause.	9	516
" from Woodstock to	‡Exeter, Ont	"	29	Oct. 19, 1908	General clause.		
Branch line of Railway	Harmony to Elmira, P.E.I	Oct.	1	Not yet prepared			
Addition to Station Building	Bloomfield, N.B	"	1	Dec. 12, 1908	600 00	9	774
" "	Boiesdale, N.B	"	1	†			
Line of Railway, Regina to	Brandon, Man	"	3	Guarantee agreem'nt	General clause.		
" Saskatoon to	Calgary, Alta	"	3	Guarantee agreem'nt	General clause.		
" Prince Albert to	Battleford, Sask	"	3	Guarantee agreem'nt	General clause.		
" Thunder Hill to	Rosthern, Sask	"	3	Guarantee agreem'nt	General clause.		
" Rosthern line	Man. Northwest for 50 miles	"	3	Guarantee agreem'nt	General clause.		
Office Building	Charlottetown, P.E.I	"	5	To stand for this year			
Closing of Dam	Carillon, Que	"	14	Nov. 25, 1908	Schedule rates.	9	623
Wiring train service Building	Chaudiere Jct., Que	"	14	Too late for present report			
Concrete lining of Canal bank	Soulanges Canal, Que	"	14	Dec. 12, 1908	Schedule rates.	9	775
Two Sixty ton motor electric travelling cranes for work shops	Riviere du Loup, Que	"	14	Out for execution	General clause.		
Line of Railway from Carman to	‡Penticton, B.C	"	14	Oct. 23, 1908	General clause.		

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.
‡ $6,200 per mile not exceeding $6,400 per mile.
† No reports received from the Department of Railways & Canals.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES, &c.—Continued.

Nature of Work.*	Locality.	Date at which schedule supplied by Department of Labour	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
				$ cts.	Vol.	Page
Electric lighting of Canal Lock	St. Ours, Que.	Oct. 15	†			
Main gates for light Lock	Sault Ste. Marie, Ont.	" 15	Dec. 22, 1908	15,523 00	9	775
Section of Trent Canal	Lindsay, Ont.	" 15	Jan. 20, 1909	Schedule rates.	9	1000
Branch line Transcontinental Ry	‡Port Arthur to Fort William, Ont.	" 15	Oct. 19, 1908	General clause.		
Trimming slopes of Canal	Cornwall, Ont.	" 16	Nov. 18, 1908	Schedule rates.	9	623
Mail and Express Building	Sackville, N.B.	" 22	†			
Steam heating of buildings	Halifax, N.S.	" 22	Dec. 22, 1908	8,600 00	9	773
Stone protection on summit level	Thorold to Pt. Colborne, Ont.	" 29	Not executed.			
Ice House	Levis, Que.	" 30	Not yet prepared.			
"	Ste. Flavie, Que.	" 31	Feb. 18, 1909	3,250 00	9	1000
One ten ton travelling crane	Riviere du Loup, Que.	Nov. 2	†	General clause.		
Improvment to Harbour	St. Johns, Que.	" 3	Dec. 15, 1908	Schedule rates.	9	775
Protection work, Hungry Bay Dyke	Beauharnois Canal, Que.	" 10	Jan. 7, 1909	Schedule rates.	9	881
Freight Shed on Wharf	Charlottetown, P.E.I.	" 12				
Line of Railway, Carmi to	‡New Westminster, B.C.	" 14	Dec. 7, 1908	General clause.	9	776
Heating Machine Shops, etc	Riviere du Loup, Que.	" 16	May 12, 1909	4,685 00	9	1361
Line of Railway, Joggins Mines to	‡Bay of Fundy, N.S.	" 18	Dec. 2, 1908	General clause.	9	776
Wiring of Freight Shed	Campbellton, N.B.	" 23	Out for execution			
Macadam Roadway, Welland Canal	Ramey's Bend, Ont.	" 25	Dec. 2, 1908	Schedule rates.	9	776
Electric lighting of Station, etc., etc	Maccan, N.S.	" 30	†			
Line of Railway to Mt. Carlyle	‡North Shore Ry., N.S.	Dec. 2	Dec. 22, 1908	General clause.	9	776
" Manitoulin	Little Current to Sudbury, Ont.	" 2	†	General clause.		
" Little Current Crossing to	Sudbury, Ont.	" 2	Not yet prepared	General clause.		
"	Sudbury North, Ont.	" 2	Not yet prepared	General clause.		
" Yamaska to	St. Gregoire, Que.	" 12	Feb. 25, 1909	per mile	9	1001
" Mt. Johnson to	St. Gregoire, Que.	" 12	Fed. 25, 1909	$3,200 to $6,400	9	1001
Smoke stack for engine house	Chaudiere Jct., Que.	" 14	Jan. 18, 1909	175 00	9	882
Line of Railway, Orangedale to	Caribou Cove, N.S.	" 19	Revote from 1907			
"	‡Moose Jaw, Westerly, Sask.	" 19	Jan. 8, 1909	General clause.	9	882
Installation of Boilers	Halifax, N.S.	" 21	†			
"	Riviere du Loup, Que.	" 21	†			
Line of Railway, Toronto to	‡Sudbury, Ont.	" 24	Jan. 23, 1909	General clause.	9	882

		1909				
Power Plant	Charlottetown, P.E.I.	Jan. 5	†			
Boiler Plant	Moncton, N.B.	" 5	May 4, 1909	32,150 00	9	1361
Heating and plumbing station	Iona, N.S.	" 13	†			
Extension to Freight Shed, etc., etc	Souris, P.E.I.	" 16	Sept. 19, 1908	1,380 00	9	441
Line of Railway, Sudbury to	‡Hutton Mines, Ont.	" 23	Feb. 4, 1909	General clause.	9	1001
Fencing Ste. Rosalie to	Chaudiere, Que.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Chaudiere to	Riviere du Loup, Que.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Riviere du Loup to	Ste. Flavie, Que.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Ste. Flavie to	Campbellton, N.B.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Campbellton to	Newcastle, N.B.	" 29	Aug. 24, 1906	Schedule rates.	9	330
" Newcastle to	Moncton, N.B.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" St. John to	Point du Chene, N.B.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Painsec to	Truro, N.S.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Dartmouth to	Windsor, N.S.	" 29	May 12, 1908	35½ cts per rod.	8	1461
" Stellarton to	Mulgrave, N.S.	" 29	Aug. 24, 1908	Schedule rates.	9	330
" Point Tupper to	Sydney, N. S.	" 29	Aug. 24. 1908	Schedule rates.	9	330
" Loggieville to	Fredericton, N.S.	" 29	May 12, 1908	35½ cts per rod.	8	1461
Foundation of Lock No. 2	New Welland Canal, Ont.	Feb. 2	April 1, 1909	Schedule rates.	9	1262
Repair Shops	St. John, N.B.	" 4	To stand for present			
Line of Railway	Garneau Junction to Quebec, Que.	" 19	April 5, 1909	‡	9	1261
Machine Shop	Lachine Canal, Que.	" 20	†			
Providing of Signals, etc.	Near Humphreys, N.B.	" 22	No contract	General clause.		
Wiring of Engine House	Newcastle, N.B.	" 25	Too late for present report			
Engine House	Charlottetown, P.E.I.	March 1	Not yet prepared			
Superstructure of Piers at	Lock No. 27, Cardinal, Ont.	" 11	Not yet prepared			
Line of Railway	Ottawa to Hawkesbury, Ont.	" 25	Too late for present report.			
Wiring of Freight Shed	Bathurst, N.B.	" 27	Too late for present report			

* The list is here given in the order in which the requests for schedules were received at the Department of Labour.
‡ $3,200 per mile not exceeding $6,400 per mile
† No report received from the Department of Railways & Canals.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX., A. R. No. 7.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES WERE REQUESTED BY THE DEPARTMENT OF MARINE AND FISHERIES, AND PREPARED BY THE DEPARTMENT OF LABOUR, ALSO AMOUNT OF CONTRACT, DATE AT WHICH AWARDED AND WHERE FAIR WAGES SCHEDULES PUBLISHED, FOR THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Nature of Work.*	Locality.	Date at which schedules supplied by Department of Labour.	Date of Contract.	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published.	
				$ ct.	Vol.	Page.
†Two wooden lighthouse towers	Mabon Harbour, N.S.	Mch 25	March 23, 1908	2,450 00	9	199-0
Wooden dwelling for lightkeeper	Little Belledune Pt., N.B.	June 27	July 9, 1908	1,100 00	9	331
Dwelling at eastern entrance	Toronto Harbour, Ont	" 27	July 18, 1908	3,295 78	8	517
Fog alarm building	Cape Dogs, Que.	Aug. 14	‡			
Reinforced concrete lighthouse	Cape Croker, Ont.	" 14	Sept. 1, 1908	1,820 00	9	517
Four lighthouse towers	Pugwash Harbour, N.S.	" 19	Sept. 10, 1908	1,990 00	9	517
Lighthouse tower and cribwork pier	North Sydney, N.S.	" 22	Sept. 25, 1908	3,280 00	9	518
Lobster hatchery	Georgetown, P.E.I.	" 25	Sept. 16, 1908	1,420 00	9	517
Dwelling for fog alarm station	Panmure Island, P.E.I.	Sept. 17	Feb. 25, 1909	1,960 00	9	
Two lighthouse towers	L'Ardoise, N.S.	" 23	Oct. 26, 1908	1,340 00	9	1,001-2
Wooden lighthouse tower	Eatonville, N.S.	" 26	Oct. 16, 1908	675 00	9	625
" "	Parker's Cove, N.S.	" 30	Nov. 16, 1908	365 00	9	777
" "	McNeil's Beach, N.S.	Oct. 5	May 15, 1909	780 00		
Public works	Winnipegosis, Man.	" 27	§			
Wooden lighthouse tower	Peter's Island, N.S.	Nov. 12	Not awarded			
" "	Canso, N.S.	Dec. 21	Jan. 19, 1909	720 00		
" "	Little Liscomb, N.S.	Jan. 28	March 15, 1909	525 00		
Reinforced concrete beacon	Goderich, Ont.	Mch 19	June 11, 1909	3,000 00		

* This list is here given in the order in which the requests for schedules were received at the Department of Labour.

† Omitted in last report.

‡ Building erected by days' work.

§ This schedule was prepared for checking accounts.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 8.

LIST OF CONTRACTS FOR WHICH FAIR WAGES SCHEDULES WERE REQUESTED BY THE DEPARTMENT OF MILITIA AND DEFENCE, AND PREPARED BY THE DEPARTMENT OF LABOUR, SHOWING ALSO AMOUNT OF CONTRACT, DATE AT WHICH AWARDED, AND WHERE FAIR WAGES SCHEDULES PUBLISHED, FOR THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Nature of Work.*	Locality.	Date at which schedules supplied by Department of Labour.	Date of Contract	Amount of Contract.	Issue of Labour Gazette in which Fair Wages schedule was published	
		1908		$ ct	Vol.	Page.
Public Works	Virden, Man.	May 14				
Information on certain trades	Virden, Man.	" 14				
" "	Ottawa-Rockcliffe, Ont	" 26				
" "	Halifax, N.S.	July 9				
" "	St. Johns, Que.	" 23				
" "	Niagara on the Lake, Ont.	" 28				
" "	Victoria, B.C.	Aug. 4				
Rifle Range	Prescott, Ont	" 18				
Information on all trades	Kingston, Ont.	Oct. 24				
		1909				
Rifle Range	Nelson, B.C.	Jan. 14				
"	Edmonton, Alta	March 8				
	MISCELLANEOUS	1908				
Wire fencing	Buffalo Park, Alta.	June 4				
"	Reserve, Alta.	" 4				
Railway line in Experimental Farms	Ottawa, Ont	Sept. 24				

* This list is here given in the order in which the requests for schedules were received at the Department of Labour.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 9.

LIST OF SUPPLIES FURNISHED THE POST OFFICE DEPARTMENT BY CONTRACT OR OTHERWISE, UNDER CONDITIONS FOR THE PROTECTION OF THE LABOUR EMPLOYED, WHICH WERE APPROVED OF BY THE DEPARTMENT OF LABOUR DURING THE FINANCIAL YEAR ENDING MARCH 31, 1909.

Nature of Order.	Amount of Order.
	$ cts.
Making and repairing metal dating and other stamps and type, and brass crown seals	9,347 04
Making and repairing rubber dating and other hand stamps and type	775 57
Supplying stamping material, inclusive of making and repairing pads, also wooden boxes, and post marking and cancelling ink	11,956 10
Making and repairing post office scales	2,286 50
Supplying mail bags	31,005 21
Repairing mail bags	14,823 01
Repairing mail locks, and supplying mail bag fittings	9,205 10
Supplying portable letter boxes and repairing parcel receptacles, portable tin boxes, and railway mail clerk's tin boxes	5,835 91
Miscellaneous orders for making and repairing postal stores	1,481 15
Making up and supplying articles of official uniforms	42,618 33
Total	$129,333 92

INVESTIGATION OF COMPLAINTS ARISING OUT OF CONDITIONS INSERTED IN GOVERNMENT CONTRACTS FOR THE PROTECTION OF LABOUR.

During the fiscal year seventeen complaints were received at the Department of Labour from or on behalf of workmen having reference to the alleged non-fulfilment of conditions inserted in public contracts for the protection of labour. Another complaint of the same character which was received near the close of the last financial year was investigated during the present year. Two others were from contractors, one being a protest against the rate of wages set for a certain class of labour in a Fair Wages Schedule to be inserted in a proposed contract and the other was with regard to certain classes of workmen who, it was alleged, had agreed to work for a lower rate of wages than that set forth in the Fair Wages Schedule forming part of the contract. Compared with the previous year there was an increase of eight complaints.

The first complaint to receive the attention of the officers of the Department was that received near the close of the previous fiscal year, alleging that certain supplies for the Department of Militia and Defence were being manufactured in Ottawa under unfair conditions. In this case the complainants had a wrong conception of the object and working of the Fair Wages Resolution, being, apparently, under the impression that it empowered the Department of Labour to fix a higher rate of wages for work done for the Government than was current in the trade. After certain investigations had been undertaken and the working of the Fair Wages Resolution fully explained to the complainants by one of the Fair Wages Officers, the complaint was withdrawn.

On investigation by one of the Fair Wage Officers the complaint concerning the contractors for the armouries building at Brandon, Man., was shown to be unfounded. The report showed that the contractors were

adhering faithfully to the labour conditions in their contract, and were paying labourers from 2½c to 5c per hour more than other contractors in Brandon performing similar work, the rate of wages for that class of labour having fallen since the schedule was prepared.

During the month of May, 1908, a contractor tendering on the work of dredging the western entrance to Toronto harbour filed a complaint to the effect that the rates of wages fixed in the Fair Wages Schedule for labourers attached to the contract was too high. In this case the report of the Fair Wages Officer who prepared the schedule went to show that the rates in the locality had materially changed between the time at which the schedule was prepared and the time at which the complaint was filed. As the contract had not been executed, it was recommended that the rate be changed from $1.75 to $1.50 per day.

The complaint from Ladysmith, B.C., regarding the non-observance of the Fair Wages Schedule in the contract for the construction of a post office building in that place was adjusted by means of correspondence between the contractor and the Department. The contractors admitted that they were not paying the rate of wages set forth in the schedule to building labourers, alleging as a reason that men qualified for the work could not be obtained in Ladysmith, and stating that if they must pay the rate as provided in the Schedule it would be necessary for them to seek labour from outside sources. The contractors were informed that they were limited to the terms of the Fair Wages Schedule in their contract and that payment to any class of labour at a lower rate than that specified would render them liable to be called upon at any time to pay the additional amount due under the terms of the Fair Wages Schedule. No further action was necessary.

In connection with the complaint against the contractors for the examining warehouse at Winnipeg, Man., the complainants alleged that the rate of wages for structural iron workers had been omitted from the Fair Wages Schedule forming part of the contract; that the schedule had not been posted as required, and that ordinary labourers were engaged in the erection and construction of iron (a work, it was alleged, which should be performed by skilled mechanics) and were being paid at the rate set for ordinary labourers. An investigation by one of the Fair Wages Officers showed that the complaint was well founded, excepting in one particular, being that in regard to the posting of the schedule in a conspicuous place on the works. The rate of wages for structural iron workers had been inadvertently omitted from the schedule, but even that class of labour was fully protected under section 4 of the labour conditions inserted in all contracts let by the Department of Public Works, which reads as follows:—

> "The foregoing schedule is intended to include all the classes of labour required for the performance of the work, but if any labour is required which is not provided for by any of the items in the above schedule, the Minister, or other officer authorized by him, whenever and as often as the occasion shall arise, shall have the power to fix the minimum rate of wages payable in respect of such labour, which minimum rate shall not be less than the rate of wages which is generally accepted as current in each trade or class of labour for competent workmen in the district where the work is being carried out."

A satisfactory arrangement was effected with the contractors by which they agreed to employ men skilled in the erection and construction of iron and pay them at the rate prevailing in the district.

In connection with the complaint against the contractor for the armouries building at Hamilton, Ont., the complainants alleged (a) that he refused to comply with the working rules of the district, in respect to hours of labour, inasmuch as he insisted on carpenters working 9 hours per day, while 8 hours is generally recognized as being current; (b) that certain portions of the contract had been sublet, and (c) that aliens were being employed on the work. An investigation was made by one of the Fair Wages Officers, whose report showed that in regard to the first section of the complaint the contractor was not blamable, the carpenters having changed the working hours from 9 to 8 after the Fair Wages Schedule had been prepared and the contract executed. The complainants had no particulars in regard to the second section and the third was proven to be unfounded.

It was alleged that the contractors for certain drain work at Tête du Pont Barracks, Kingston, Ont., were not paying labourers in accordance with the rates prevailing in that place. An investigation was made by one of the Fair Wages Officers, who reported that the complaint was unfounded. It was claimed by the complainants that the work should be classified as that belonging to builders' labourers and paid for at the rate set for that class, being $2.00 per day of 8 hours. In the opinion of the officer of the Department the work belonged to the ordinary labourers' class, and should be paid for at the rate of $1.75 per day of 9 hours, which was the rate paid by the contractors.

One of the Fair Wages Officers made an investigation into the complaint against the contractor for the trestle bridge at Sydney, N.S., and effected a settlement of the dispute satisfactory to both sides.

In connection with the complaint from Glace Bay, N.S., alleging that carpenters were not receiving fair treatment in the payment of wages by the contractors for the post office building in that place, one of the Fair Wages Officers proceeded to Glace Bay to make an investigation. It seems that between the time the complaint was made and the arrival of the officer the workmen succeeded in effecting a settlement with the contractors without the intervention of the Department, and the Fair Wages Officer was so informed. No further action was necessary.

Complaints were received at the Department from several sources alleging that the contractor for certain buildings for the use of the Royal Northwest Mounted Police at Regina, Sask., was not paying bricklayers and other mechanics employed on the work in accordance with the custom prevailing in that district. Inquiries made at the Department of the Royal Northwest Mounted Police elicited the information that through an inadvertance a Fair Wages Schedule had not been inserted in the contract. When the contractor's attention was drawn to the complaint he voluntarily agreed to conform to the established labour conditions of the district.

A complaint from Frankford, Ont., alleged that the contractors for Section 2 of the Trent Valley Canal had refused to pay the complainant in

accordance with the rates set forth in the Fair Wages Schedule, stating that he had worked for 6¼ days as a common labourer and for 10 days as a carpenter, and had been offered payment at the rate of $1.50 per day for the whole period. He claimed payment at the rate of $1.75 per day for work performed as a common labourer and $2.25 per day for the time he was employed as a carpenter. The complaint was investigated by one of the Fair Wages Officer, who reported that the complainant had worked the time as stated, but was unable to establish the claim that he had been employed as a carpenter. A settlement was effected whereby the contractors agreed to pay the complainant at the rate of $1.75 per day for the whole time he had been employed. This was accepted as being satisfactory.

A satisfactory adjustment was made by one of the Fair Wages Officers in the case of the masons and stonecutters employed at the Citadel, Quebec, Que., procuring for these tradesmen the rates current in the city.

A complaint came from Toronto in which the contractors for the new observatory building were concerned. It was alleged that the sub-contractors doing the concrete work were employing unskilled labour in the manufacture of frames for concreting, claiming that the work should be done by carpenters and paid for at the rate set in the Fair Wages Schedule for that class of labour. An investigation was made by one of the Fair Wages Officers, who reported that he had found the facts as stated, but as the work was nearly completed it was agreed by complainants not to further pursue the case.

Another complaint of the same nature was that against the contractors for the post office annex at Montreal, Que. In this case carpenters were employed in the construction of frames for concrete and were paid at the rate set forth in the Fair Wages Schedule for builders' labourers, being 25 cents per hour, while the rate set for carpenters was 30 cents per hour. On investigation by one of the Fair Wages Officers it was found that seven of the workmen had been underpaid, and he recommended payment of the difference between what they had received and what they should have received had payment been made in accordance with the terms of the contract. The contractor subsequently forwarded a cheque in settlement of the claims.

In the case of the structural iron workers at St. Andrew's Rapids, Man., the complainant neglected to furnish essential information requested by the Department before proceeding to an investigation. Hence no action was taken.

During the month of January, 1909, a complaint was received to the effect that painters and decorators performing work on a portion of the House of Commons building were not being paid the rates of wages current in Ottawa. On investigation it was found that the work had been undertaken and was largely executed by the permanent staff of workmen employed by the Department of Public Works, but as the staff could not complete the work within the limited time at its disposal, it was found necessary to secure the assistance of certain firms in that line of trade. They were, therefore, given portions of the work to complete without contract. The work having, however, been completed before the complaint was made, no action could be taken by the Department.

The contractors for the post office building at Welland, Ont., wrote the Department of Public Works for information concerning the interpretation to be placed upon the Fair Wages Schedule inserted in their contract. It was stated by them that bricklayers and masons were offering their services at a lower rate than that set forth in the schedule, and the contractors asked if they were allowed to regulate such matters themselves. The communication was referred to the Department of Labour, when an officer informed the contractors that any payment of wages to bricklayers and masons at a lower rate than that specified in the Fair Wages Schedule would be a departure from the terms of the contract in which the schedule was included.

The two remaining complaints reached the Department two days prior to the close of the fiscal year, both being from the city of Quebec and relating to the non-payment of proper rates of wages to stonecutters. No action had been taken at the close of the fiscal year.

Taking into consideration all the complaints, either settled or filed during the year, two of these had to do with work being carried out in the Province of Nova Scotia, five with work in the Province of Quebec, eight with work in the Province of Ontario, three with work in the Province of Manitoba and one each with work in the Provinces of Saskatchewan and British Columbia.

Two complaints were with regard to work being done under contract for the Department of Militia and Defence, two for work being done under contract for the Department of Railways and Canals, one for work being done under contract for the Department of the Royal Northwest Mounted Police, and the remainder for work being performed for the Department of Public Works.

Fourteen of these complaints alleged non-payment of the proper rates of wages; three that contractors had sub-let portions of their contracts and under-payment of the workmen; two the employment of unskilled labour at a low rate of wages in the execution of work that should be performed by skilled tradesmen at a higher rate; one each failure on the part of the contractor to post the Fair Wages Schedule in a conspicuous place on the works; one the non-observance by the contractor of the working hours of the district; one the employment of aliens, and the manufacturing of supplies for the Government under unfair conditions; two others were from contractors, one objecting to a rate of wages set in a Fair Wages Schedule inserted in a contract for a work upon which he was tendering, and the other asking to be advised regarding the offer of workmen to accept a rate lower than that set in the Fair Wages Schedule in his contract.

The following table will show the nature of the investigations which have been made by the Fair Wages Officers of the Department during the year ended March 31, 1909, into complaints received at the Department, the nature of the claims presented, the Department of the Government effected, and the disposition made of the several claims:—

TABLE SHOWING NATURE AND RESULTS OF INVESTIGATIONS MADE BY THE FAIR WAGES OFFICERS DURING THE FINANCIAL YEAR ENDED MARCH 31, 1909.

I.—Complaint received prior to the beginning of the fiscal year 1908-09 and investigated during the year.

Complaint received.	Locality and Public Work.	Department affected.	Subject of Investigation	Disposition.
March 9, '08	Ottawa, Ont., Supplies for Dept. of Militia & Defence.	Militia and Defence.	That leather belts, frogs for bayonets, leggings, saddles and bridles were being manufactured for the Government by contract in Ottawa under unfair conditions.	On April 23 complainants asked permission to withraw the complaint, when further investigation ceased.

II.—Complaints received since the beginning of the fiscal year 1908-09, and investigated during the year.

April 4, '08	Lachine Canal, Repairs.	R'ys & Canals	That the contractor for repairs to the Lachine Canal was not paying the current rate of wages to men employed on the works.	Referred to the Department of Railways and Canals. No action taken.
May 9, '08	Brandon, Man., Armouries building.	Public Works	That the contractors were not paying builders' labourers in accordance with the Fair Wages Schedule.	Complaint investigated by an officer of the Department, who reported that there was no ground for complaint, that the contractors were adhering faithfully to the labour conditions in their contract, and recommended that no further action be taken.
May 15, '08	Toronto, Ont., Dredging of Western entrance to Toronto Harbour.	Public Works	That the rate of wages ($1.75 per day for ordinary labourers) as set forth in the Fair Wages Schedule prepared for this work was too high, and requested that it be lowered to $1.50 per day.	The officer who prepared the Schedule reported that it was made in December, 1907, and was based on the figures prevailing throughout the previous summer. With the opening of the season of 1908 the rate for ordinary labourers had been reduced to $1.50 per day. As the contract had not then been executed, he recommended that the figures be changed from $1.75 to $1.50.
May 23, '08	Ladysmith, B. C., Post Office Build'g.	Public Works	That the contractors were paying builders' labourers at a rate below that set forth in the Fair Wages Schedule.	The contractors were communicated with by an officer of the Department who effected an arrangement whereby the Fair Wage Schedule forming part of the contract should be strictly adhered to. No further action necessary.

TABLE SHOWING NATURE AND RESULTS OF INVESTIGATION, &c.—Continued.

Complaint received.	Locality and Public Work.	Department affected.	Subject of Investigation.	Disposition.
June 19, '08	Winnipeg, Man., Examining Warehouse Building.	Public Works.	That the contractors were employing unskilled labour in the erection and construction of iron work, contrary to custom in Winnipeg, claiming that such work should be performed by skilled mechanics at the rate of wages prevailing for structural iron workers.	Investigation was made by an officer of the Department, who reported that the complaint was well founded. An arrangement satisfactory to the complainants was made, whereby the contractors agreed to employ men skilled in the erection and construction of iron and pay them at the rate of 40c. per hour.
June 20, '08	Hamilton, Ont., Armouries Building.	" "	That the contractor refused to comply with the working rules of the District in respect to hours of labour for carpenters; that portions of the contract were sub-let, and that aliens were employed on the work.	Investigation was made by an officer of the Department, who reported that the contractor was adhering strictly to the terms of the Fair Wages Schedule, the workmen having changed the working hours from 9 to 8 since the contract was executed, and advised that no action be taken. No particulars were available in connection with the charge of sub-letting, and the two workmen complained of as being aliens were found to be British subjects.
July 10, '08	Kingston, Ont., Drainage at Tete de Pont Barracks.	" "	That the contractors for certain drain work at Tete de Pont Barracks were paying labourers $1.75 per day of 9 hours, alleging that $2.00 per day of 8 hours was current at Kingston.	Complaint investigated by an officer of the Department, who reported that there was no cause for complaint, and recommended that no further action be taken.
July 13, '08	Sydney, N.S., Trestle Bridge.	" "	That the contractor was paying carpenters at the rate of $2.00 per day of 10 hours, while the rate set forth in the Fair Wage Schedule is $2.25 per day of 9 hours.	An officer of the Department made an investigation and effected a settlement satisfactory to the complainants.
July 13, '08	Glace Bay, N.S., Post Office Building.	" "	That the contractors were not paying carpenters in accordance with the terms of the Fair Wages Schedule.	An officer of the Department proceeded to Glace Bay to investigate the complaint when the workmen concerned refused to give information regarding their claims. No further action was taken.
July 2, '08	Regina, Sask., Buildings for use of the Royal Northwest Mounted Police.	Royal Northwest Mounted Police.	That the contractor was not paying the current rate of wages to bricklayers and other mechanics employed on the works.	Through an inadvertence a Fair Wages Schedule had not been inserted in this contract, but when the contractor's attention was drawn to the complaint he agreed to conform to the labour conditions of the District. No further action was taken.
Sept. 8, '08	Frankford, Ont., Section 2, Trent Valley Canal.	R'ys & Canals	That the contractors refused to pay the rate of wages set forth in the Fair Wages Schedule to complainant for work performed as a carpenter and labourer.	Investigation was made by an officer of the Department, who reported that he had effected an arrangement which was satisfactory to the complainant, whereby he was to receive $1.75 per day for the whole period of his employment.

Sept. 23, '08	Quebec, Que., Work at Citadel.	Militia and Defence.	That the contractors were not paying the current rates of wages to stonecutters and masons.	Complaint investigated by an officer of the Department, who reported that an arrangement had been concluded whereby the workmen would be paid the rate of wages current in the City of Quebec.
Oct. 14, '08	Toronto, Ont., Observatory Building	Public Works.	That the contractors were employing ordinary labour in the performance of work that should be executed by skilled mechanics.	Complaint investigated by an officer of the Department, who reported that as the work was almost completed the complainants did not desire to further pursue the complaint.
Dec. 10, '08	Montreal, Que., Post Office Annex.	" "	That the contractors were paying carpenters at the rate of 25c. per hour, while the Fair Wages Schedule in the contract stipulates a rate of 30c.	Complaint investigated by an officer of the Department, whose report showed that seven workmen had been underpaid, and recommended payment of the difference between what the contractor paid and the rate set forth in the Fair Wages Schedule. The contractors subsequently forwarded a cheque in settlement of the claims.
Dec. 14, '08	St. Andrew's Rapids, Man., Lock and Dam.	" "	That structural iron workers were not receiving the current rate of wages.	The complainant was requested to furnish more detailed information. Nothing further being received the matter was allowed to lapse.
Jan. 25 '08	Ottawa, Ont., Painting and Decorating House of Commons Building.	" "	That the current rate of wages was not being paid to painters and decorators for work performed.	On investigation it was found that certain firms had been called in to assist in the completion of work undertaken by the permanent staff of the Department of Public Works. No action was taken.
Jan. 28, '08	Welland, Ont., Post Office Building.	" "	The contractors wrote to the Department of Public Works stating that bricklayers and masons were offering their services at 35c. per hour, and asked if they (the contractors) were allowed to regulate such matters. The Fair Wages Schedule forming part of the contract stipulated a rate of 45c. per hour for such work.	The communication was referred to the Department of Labour, and an officer of this Department informed the contractors that any payment of wages to bricklayers and masons at a lower rate than 45c. per hour would be an infringement of the Fair Wages Schedule and a departure from the terms of the contract in which the Schedule was included. No further action was taken.

III.—COMPLAINTS RECEIVED DURING THE FISCAL YEAR 1908-9, BUT REMAINING UNDISPOSED OF AT THE END OF THE YEAR.

Mar. 29, '09	Quebec, Que., Drill Shed School of Gunnery.	Public Works.	That the contractors had sub-let the stone-cutting portion of the work and that stonecutters were paid at the rate of $3.00 per day of 9 hours instead of 40c. per hour for a day of 8 hours, as required by the Fair Wages Schedule.	Investigation not commenced at end of fiscal year.
Mar. 29, '09	Quebec, Que., St. Roch Post Office.	" "	That the contractors had sub-let the stone-cutting portion of the work and that the rate paid to stonecutters was $2.25 per day, instead of 40c. per hour, as set down in the Fair Wages Schedule.	Investigation not commenced at end of fiscal year.

XII.—STRIKES AND LOCKOUTS IN CANADA DURING 1908, WITH COMPARATIVE STATISTICS FOR THE YEARS 1901 TO 1908, INCLUSIVE.

The calendar year 1908 was remarkably free from strikes and lockouts in Canada, the number reported to the Department having been less than in any of the seven previous years during which a record has been kept. There were 69 strikes and lockouts in Canada during 1908, a decrease of 82 compared with the previous year. Three of these disputes began in the year 1907. The number of strikes and lockouts in existence in each of the previous years was 104 in 1901, 123 in 1902, 160 in 1903, 103 in 1904, 87 in 1905, 139 in 1906, and 151 in 1907.

The only disputes of serious consequences were a strike of cotton mill hands which took place at various points in the Province of Quebec, and a strike of machinists along the line of the Canadian Pacific Railway.

On May 4, the mule spinners employed by the Dominion Textile Company and the Montreal Cotton Company at Valleyfield, Hochelaga, and St. Henri, Que., to the number of about 267, went on strike, on account of a reduction of 10 per cent. in their wages, which the companies claimed was necessary to meet changed conditions in the cotton industry. On May 6, 1,200 other operatives went out at St. Henri, joined on May 12 by 350 at Hochelaga, and several hundred at Magog. A few days later the spoolers went out at Valleyfield, followed by 150 hands from the finishing department. The mill was then closed by the Montreal Cotton Company, throwing about 3,000 operatives out of work. At the end of May it was estimated that about 6,000 employees were idle owing to this dispute. The strike, which caused a loss of about 134,450 working days, lasted until June, in the course of which month many of the strikers returned to work pending an inquiry into the cotton industry on behalf of the Dominion Government. None of the mills affected, however, were in full operation during June. On the 29th of that month, Mr. W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, was appointed a Commissioner to inquire into the dispute. An account of the proceedings of the Commission will be found in another portion of this Report.*

On April 28, an application was received in the Department for the appointment of a Board under the Industrial Disputes Investigation Act, 1907, to deal with a dispute between the Canadian Pacific Railway Company and the employees in its mechanical department. The dispute arose from the posting of a notice by the Company on April 1, of the Company's intention to cancel on May 1, existing agreements with its employees on the Western lines and to substitute new rules with reference to the definition of machinists and boilermakers, the proportion of apprentices to journeymen in each trade, the hours of labour in roundhouses, the duties of helpers to machinists, and the method of dealing

*See page 116.

with grievances. A Board was accordingly appointed, and proceeded to investigate the dispute. The recommendations of the Board received in the Department on July 20, were accepted by the Company, and were put into effect on August 1, but the employees declared that the findings of the Board were not acceptable to them.*

On August 5, the men in the mechanical and car departments, to the number of about 8,000 went out, the strike extending to all the shops of the Company throughout the Dominion. The strike lasted until October 5, when it was declared off, and the award of the Conciliation Board was accepted by the men. The Company in the meantime had secured a large number of men to fill the places of the strikers, but on the termination of the strike it agreed to take measures to prevent any discrimination.

In the lumbering industry the principal dispute was a strike of shingle sawyers and bunchers at St. John, N.B., which caused all the shingle mills of that town to be closed from March 16 to October 1. The dispute arose from a reduction in wages, and work was finally resumed on the employers' terms. About 75 men were involved, and the loss of time incurred by them amounted approximately to 12,825 working days.

The strikes in the mining and quarrying industries were mainly of short duration the only prolonged dispute having been in the case of a general strike of granite cutters at the quarries at St. George, N.B. This dispute, which involved about 200 men and five firms began on June 1, upon the refusal of the employers to grant a demand for shorter hours and fortnightly instead of monthly payment of wages. The strike ended on August 22 in favour of the employees, after negotiations had taken place between the parties concerned. The loss of time amounted to about 14,400 working days.

MAGNITUDE OF DISPUTES.

Out of the 66 trade disputes which began in 1908, only 4 involved 1,000 or more employees, compared with 13 in 1907. On the other hand 36 of the strikes and lockouts of 1908 affected each under 100 persons.

The total number of employees involved in trade disputes which began during 1908 was approximately 26,250, compared with 34,972 in 1907, and 26,014 in 1906.

LOSS OF TIME IN WORKING DAYS.

The loss of time to employees through trade disputes during 1908 amounted approximately to 706,556 working days, compared with a loss of approximately 613,986 days in 1907. The increase in the loss of time was accounted for by the strikes of textile workers in the Province of Quebec and machinists on the line of the Canadian Pacific Railway. In these two strikes alone it is estimated that there was a loss amounting to 516,450 working days. In 1904, there was a loss of about 278,956 days; in 1905, the loss amounted to 284,140 days and in 1906 to 490,400 days.

* An account of the proceedings of the Board is given in the Appendix to this Report, on page 238.

TRADES AFFECTED BY THE DISPUTES.

Out of 66 disputes which began in 1908, there were 12 in the building trades, 10 in the mining and quarrying industry and 9 in the metal working and shipbuilding trades. No strikes or lockouts occurred in any trade or industry connected with agriculture, fishing or leather working.

LOCALITIES AFFECTED BY TRADE DISPUTES.

There were 26 strikes and lockouts reported to have occurred in the Province of Ontario during 1908, and 19 in the Province of Quebec. There were no disputes in Prince Edward Island, and only one in each of the provinces of Manitoba and Saskatchewan.

CAUSES OF DISPUTES.

In 38 of the strikes and lockouts the question of changes in wages was involved, in 22 cases the demand for an increase in wages was the sole cause of the dispute, and in 14 cases the sole cause was a reduction in wages. The question of hours of labour entered into 9 disputes. In 4 disputes a principal cause was the employment of non-unionists. Only 1 sympathetic strike was reported to the Department.

METHODS OF SETTLEMENT.

Of the 69 disputes in existence during 1908, 14 were settled by negotiations between the parties concerned, in 23 cases work was resumed on the employers' terms without any negotiations and in 17 cases the employers succeeded in filling the places of the strikers, 2 trade disputes were settled by arbitration and 4 by conciliation.

RESULTS OF DISPUTES.

Of the 69 disputes in existence during 1908, 43 ended in favour of the employers, 13 in favour of the employees and in 10 cases compromises were effected. In one case the dispute was unsettled at the close of the year and in 2 the results were not definite or were not reported to the Department.

RESULTS OF DISPUTES CLASSIFIED ACCORDING TO THEIR CAUSES.

The classification of the results of trade disputes according to their causes show that out of 22 which arose from a demand for higher wages, 13 ended in favour of the employers, 5 in favour of the employees and 4 resulted in compromises. Out of 14 disputes which arose from a reduction in wages, the employers were successful in 8, the employees in 3, while compromises were reached in 2 cases, and in 1 the result was not reported. The employers were successful in 6 disputes which arose on account of discharge of employees, and the only sympathetic strike reported during the year resulted in favour of the employers.

In the tables and charts printed herewith particulars are given of the trade disputes of 1908 with comparative statistics for the past seven years, classified under various headings.

The following table contains a list of all the trade disputes which took place in Canada during the year 1908, arranged according to industries and trades, showing in each dispute the occupation of the workpeople concerned, the locality in which the dispute occurred, the principal cause of the dispute, the method of settlement, the result in so far as it was in favour of the employer or the employee or a compromise, the dates of commencement and termination, the approximate number of establishments and employees affected, and the approximate loss of time in working days, so far as it could be ascertained:—

DEPARTMENT OF LABOUR, CANADA
STATISTICAL TABLE, SERIES IX, A.R. No. 11.

CLASSIFIED TABLE OF TRADE DISPUTES IN EXISTENCE IN CANADA DURING 1908.

Occupation.	Locality.	Alleged Cause or Object.	Method of Settlement.	Result.	Date of Commencement.	Date of Termination.	No. of establishments affected.	Approximate No. of employees affected.	Approximate loss of time in working days.
LUMBERING.									
Planing mill hands	St. Romuald, Que.	Against reduction in wages	Conciliation	Compromise	Jan. 17	Jan. 22	1	200	800
Shingle sawyers and bunchers.	St. John, N.B	Against reduction in wages	Work resumed	In favour of employers.	Mch 16	Oct. 1	....	75	12,825
Axemen	Sillery, Que	Against discharge of employee.	Conciliation	In favour of employer	July 6	July 8	1	18	36
Sawmill hands	Sault au Mouton, Que	Against delay in payment of wages.	Work resumed, no negotiations	In favour of employer	Sept. 10	Sept. 14	1	135	405
MINING AND QUARRYING.									
Coal miners	Coal Creek, B.C.	Against a new system of timbering.	Settled by negotiations between parties concerned under agreement of May 4, 1908.	Compromise	Jan. 29	Feb. 1	1	1,125	3,375
Gold miners	Goldbrook, N.S.	Against a reduction in wages	Work resumed by some strikers, places of others were filled.	In favour of employers.	Feb. 21	Mch 2	1	22	176
Iron miners	Wilbur, Ont.	For increase in wages and against increase in hours.	Places of strikers were filled	In favour of employers.	April 11	April —	1	36	612
Coal miners	Coleman, Alta.	For higher wages for new work.	Settled by a joint committee under agreement.	In favour of employees.	April 30	June 13	1	441	5,733
Coal mine employees	Port Hood, N.S.	For increase in wages	Settled by conciliation under I. D. I. Act.	Compromise	May 1	May 5	1	300	1,200
Coal miners	Michel, B.C.	Against discharge of an employee.	Work resumed, no negotiations	In favour of employers.	May 18	May 23	1	920	4,600
Coal miners	Michel, B.C.	Against discharge of employees.	Work resumed, no negotiations	In favour of employers.	May 25	May 29	1	920	4,600
Granite cutters	St. George, B.C.	For shorter hours and fortnightly instead of monthly payment of wages.	Negotiations between parties concerned.	In favour of employees.	June 1	Aug 22	5	200	14,200
Coal miners	Taber, Alta.	Dispute over pay day	Negotiations between parties concerned.	Compromise	Dec. 11	Dec. 17	1	75	375
Coal miners	Middlesboro, B.C.	Dispute over wages and conditions of employment.	Negotiations between parties concerned.	Compromise	Dec. 15	Dec. 17	1	....	.....

BUILDING.											
Builders' labourers	Port Colborne, Ont.	Against a reduction in wages.	Negotiations between parties concerned.	In favour of employees.	April 1	April 6	1	85	340
Painters	St. Catharines, Ont	For increase in wages	Negotiations between parties concerned.	In favour of employees.	April 1	April 11	3	20	200
Painters	St. John, N.B	For increase in wages	Negotiations between parties concerned.	In favour of employees.	April 1	April 7	11	70	350
Builders' labourers and bricklayers.	Ottawa, Ont	For increase in wages	Places of strikers were filled	In favour of employer	April 22	April	1	80	640
Bricklayers and masons	Halifax, N.S	For shorter hours	No negotiations	Indefinite	May 1		7	55	1,430
Bricklayers	Montreal, Que	Against reduction in wages	Places of strikers were filled	In favour of employers.	May 1	May	30	500	6,000
Bricklayers	Berlin, Ont	Against reduction in wages	Negotiations between parties concerned.	In favour of employer	May 1	May 11	7	75	600
Bricklayers, masons & stonecutters.	Calgary, Alta.	Against method of payment.	Negotiations between parties concerned.	In favour of employees.	May 19	July 13	1	53	2,491
Builders' labourers	Midland, Ont	For increase in wages	Negotiations between parties concerned.	In favour of employees.	June 17	June 22	1	250	1,000
Plasterers	Toronto, Ont	Against reduction in wages	Negotiations between parties concerned.	In favour of employees.	July 2	July 28	30	350	7,700
Plasterers	Montreal, Que	Against reduction in wages.	Places of strikers were filled	In favour of employers.	Aug. 12	Aug.	1	17	170
Carpenters	Brockville, Ont.	Objection to wages paid and to being laid off without cause.	Negotiations between parties concerned.	In favour of employees.	Dec. 7	Dec. 14	1	6	36
METALWORKING AND SHIPBUILDING.									
Machinists	Ottawa, Ont	Against a reduction in wages.	Negotiations between parties concerned.	Compromise	Jan. 20	Jan. 22	1	18	36
Tin workers	Montreal, Que	Against a reduction in wages.	Work resumed by some strikers and places of others filled.	In favour of employers	Jan. 9	Jan. 14	1	246	984
Shipbuilders	Collingwood, Ont	Against a reduction in wages.	Works closed indefinitely	Indefinite	Jan. 7		1	458	35,724
Iron moulders	Brantford, Ont.	Against conditions of employment.	Places of strikers were filled	In favour of employers.	April 1	Sept.	1	100	13,100
"	Longueuil, Que.	Against employment of non-unionists.	Places of strikers were filled	In favour of employers.	May 1	June	1	20	540
"	Weston, Ont	Against a reduction in wages and employment of non-unionists.	Places of strikers were filled	In favour of employers.	May 18	June	1	40	480
Brass workers	Port Colborne, Ont	Employees alleged they were locked out for absenting themselves. Dissatisfaction with shop rule.	Negotiations between parties concerned.	In favour of employers.	June 8	June 12	1	15	60
Tinsmiths	Kingston, Ont	For a decrease in hours	Work resumed, no negotiations	In favour of employers.	June 1	July 1	7	18	468
Iron moulders	Hamilton, Ont.	For increase in payment for short moulds.	Work resumed, no negotiations	In favour of employers.	Aug. 5	Aug. 17	1	45	495
WOODWORKING AND FURNISHING.									
Upholsterers	Guelph, Ont	Against a reduction in wages	Places of strikers were filled	In favour of employers.	Jan. 10	April	1	17	1,326

CLASSIFIED TABLE OF TRADE DISPUTES IN EXISTENCE IN CANADA DURING 1908. Continued.

Occupation.	Locality.	Alleged Cause or Object.	Method of Settlement	Result.	Date of Commencement.	Date of Termination.	No. of establishments affected.	Approximate No. of employees affected.	Approximate loss of time in work days.
TEXTILE TRADES.									
Stocking knitters.....	St. Hyacinthe, Que.	For increase in wages.....	Negotiations between parties concerned.	In favour of employers.	Feb. 24	March 6	1	12	120
Textile workers.....	Sherbrooke, Que....	Objection to doing a certain class of work.	Work resumed by most of the strikers, no negotiations.	In favour of employees.	Feb.	Feb. —	1	12	12
Cotton mill hands.....	Hochelaga, Que.....	Against employment of a particular person.	Negotiations between parties concerned.	In favour of employers.	March 3	March 9	2	1,200	6,000
" "	Valleyfield, Hochelaga, St. Henri, Magog and Montreal, Que.	Against reduction of 10 per cent in wages.	Work resumed by many strikers, no negotiations.	In favour of employers.	May 4	June —	2	6,000	127950
Woollen mill hands...	St. Hyacinthe, Que.	Against discharge of unionist employees.	Work resumed by many strikers, no negotiations.	In favour of employer.	May 12	May —	1	300	1,800
Mule spinners.....	Montmorency Falls, Que.	For increase in wages for work.	Negotiations between parties concerned.	Compromise.....	May 18	May 26	1	18	90
CLOTHING TRADES.					1907				
Corset workers..	St. Hyacinthe, Que.	Against new conditions of employment.	Work resumed, no negotiations	In favour of employer	Dec. 13	Jan. 28	1	100	2,400
Shoe workers.....	Levis, Que.....	For increase in wages.....	No negotiations, places of strikers filled.	In favour of employer	Dec. 3	Jan. —	1	135	1,350
Tailors.....	Kingston, Ont.....	Against declaration for open shops following a demand for higher wages and shorter hours.	Negotiations between parties concerned.	In favour of employees.	Sept. 23	Feb. 6	5	50	1,550
					1908				
Garment workers.....	Sherbrooke, Que ..	Against discharge of employees.	Most strikers returned to work, places of others were filled.	In favour of employer	Feb. 17	Feb. 22	1	16	64
" " "....	Montreal, Que.....	Against increase in hours and for a guarantee of wages.	Some strikers returned to work, places of others were filled.	In favour of employer	Feb. 24	April —	1	200	6,400
Shoe lasters.....	Quebec, Que.....	Against a new scale of wages following introduction of new machinery.	Arbitration.....	Compromise.....	Nov. 3	Nov. 19	1	340	4,760
"	Aurora, Ont.....	Against a new scale of wages following introduction of new machinery.	Work resumed, no negotiations	In favour of employers.	Nov. 2	Nov. 14	1	79	474

Tailors	Montreal, Que	Against employment of a non-unionist.	Not settled at end of year but employers claimed places of most strikers were filled.	No settlement at end of year.	Dec. 28		1	30	120
Food and Tobacco Preparation.									
Cigar makers	Montreal, Que	Against employment of non-unionists, strikers also alleged employers had violated an agreement.	Places of strikers were filled	In favour of employer	Jan. 14	Feb.	1	83	1,328
Printing and Bookbinding.									
Printers	St. John, N.B.	Against discharge of an employee.	Places of strikers were filled	In favour of employer	Mar. 22	April	1	40	360
Transport.									
Teamsters	Fernie, B.C.	For increase in wages and shorter hours.	Negotiations between parties concerned.	In favour of employees.	April 3	April 4	10	22	22
Longshoremen	Windsor, Ont.	For increase in wages	Places of strikers were filled	In favour of employer	April 21	April 22	1	50	50
Freight handlers	Owen Sound, Ont.	Against reduction in wages and against bonus system.	Negotiations between parties concerned.	In favour of employees.	May 7	May 11	1	250	1,000
" "	Depot Harbour, Ont.	For increase in wages	Work resumed, no negotiations	In favour of employer	July 13	July 17	1	100	400
Railway machinists	Montreal, Ottawa, Toronto, London, Winnipeg & other points on C.P.R.	Against changes in conditions of labour recommended by Board of Conciliation.	Work resumed on terms of award of Board of Conciliation.	In favour of employer	Aug. 5	Oct. 5	1	8,000	424000
Teamsters	Ingersoll, Ont	Against increase of work	Work resumed by most strikers	In favour of employer.	Aug. 7	Aug. 8	1	20	20
Freight handlers	Windsor, Ont.	For increase in wages.	Places of strikers were filled	In favour of employer	Sept. 1	Sept. 3	1	40	80
Miscellaneous Trades.									
Paper box makers	Winnipeg, Man.	Against increase in hours and reduction in wages.	Negotiations between parties concerned.	Compromise	Mar. 9	Mar. 12	1	16	48
Paper makers	Grand'Mere, Que.	Sympathetic	Work resumed, no negotiations	In favour of employer	Oct. 16	Nov. 2	1	400	5,600
Unskilled Labour.									
Snow handlers	Ottawa, Ont.	For increase in wages	Negotiations between parties concerned.	In favour of employees.	Feb. 4	Feb. 6	1	85	170
Tunnel workers	Windsor, Ont.	For increase in wages	Places of strikers were filled	In favour of employer	Mar. 6	Mar. 11	1	25	125
" "	Windsor, Ont.	For increase in wages	Places of strikers were filled	In favour of employer	May 18	May 20	1	120	240
Labourers	New Westminster, B.C.	For increase in wages	Places of strikers were filled	In favour of employer	June 5	June 6	1	25	25
"	Prince Albert, Sask.	For increase in wages	Work resumed, no negotiations	In favour of employers.	June 30	July 3	2	200	800
Railway construction labourers.	Moncton, N.B.	For increase in wages.	Work resumed by most strikers	In favour of employers.	Aug. 1	Aug. 3	1	300	600
Railway construction labourers.	Campbellton, N.B.	For increase in wages	Work resumed by most strikers	In favour of employers.	Aug. 10	Aug. 12	1	800	1,600
Labourers	Guelph, Ont.	For shorter hours	Negotiations between parties concerned.	Compromise	Oct. 27	Oct. 29	1	140	280

NUMBER AND MAGNITUDE OF TRADE DISPUTES.

The following table illustrates by months the number and magnitude of trade disputes which began during the calendar year:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 12.

TABLE SHOWING MAGNITUDE OF TRADE DISPUTES IN CANADA DURING THE CALENDAR YEAR 1908, CLASSIFIED BY MONTHS ACCORDING TO NUMBER OF EMPLOYEES INVOLVED.

Magnitude.	Number of Disputes.												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
2,000 and over					1			1					2
1,000 to 2,000	1		1										2
500 to 1,000					3			1					4
300 to 500	2			1	2		1	1		1	1		9
200 to 300	1	1			1	3							6
100 to 200		1		1	2		1		1	1			7
50 to 100	1	1	1	4	3						1	1	12
25 to 50			2	1		1		1	1			1	7
6 to 25	2	3	1	2	2	2	1	2				1	16
Unknown												1	1
Total	7	6	5	9	14	6	3	6	2	2	2	4	66

Chart No. 1, facing this page, illustrates the variations from month to month of the number of employees involved in trade disputes during each year from 1901 to 1908, inclusive.

The following table shows the magnitude of trade disputes which occurred during each of the past eight years, according to the number of workpeople involved:—

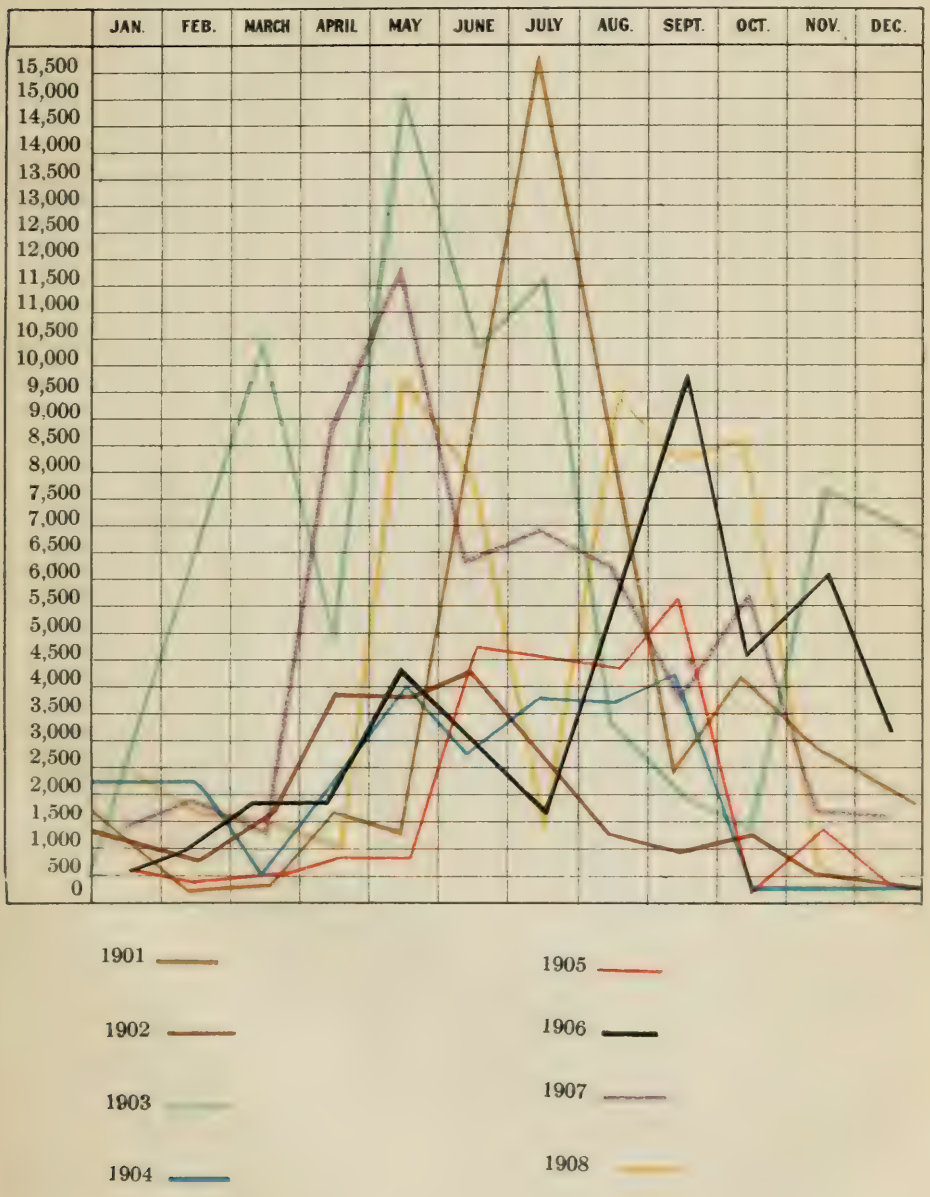
DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 13.

TABLE SHOWING MAGNITUDE OF TRADE DISPUTES IN CANADA ACCORDING TO NUMBER OF EMPLOYEES INVOLVED DURING THE YEARS 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Magnitude.	Year.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total
2,000 and over	3		5	2		1	3	2	16
1,000 to 2,000	3	2	5	3	4	4	10	2	33
500 to 1,000	5	1	10	2	5	6	7	4	40
300 to 500	5	8	9	9	4	6	9	9	59
200 to 300	4	7	18	2	4	15	7	6	63
100 to 200	4	15	23	10	15	14	18	7	106
50 to 100	14	21	19	15	17	29	28	12	155
25 to 50	24	28	34	23	17	32	28	7	193
6 to 25	31	37	36	35	21	30	31	16	237
Unknown	11	4	1	2		1	5	1	25
Total	104	123	160	103	87	138	146	66	927

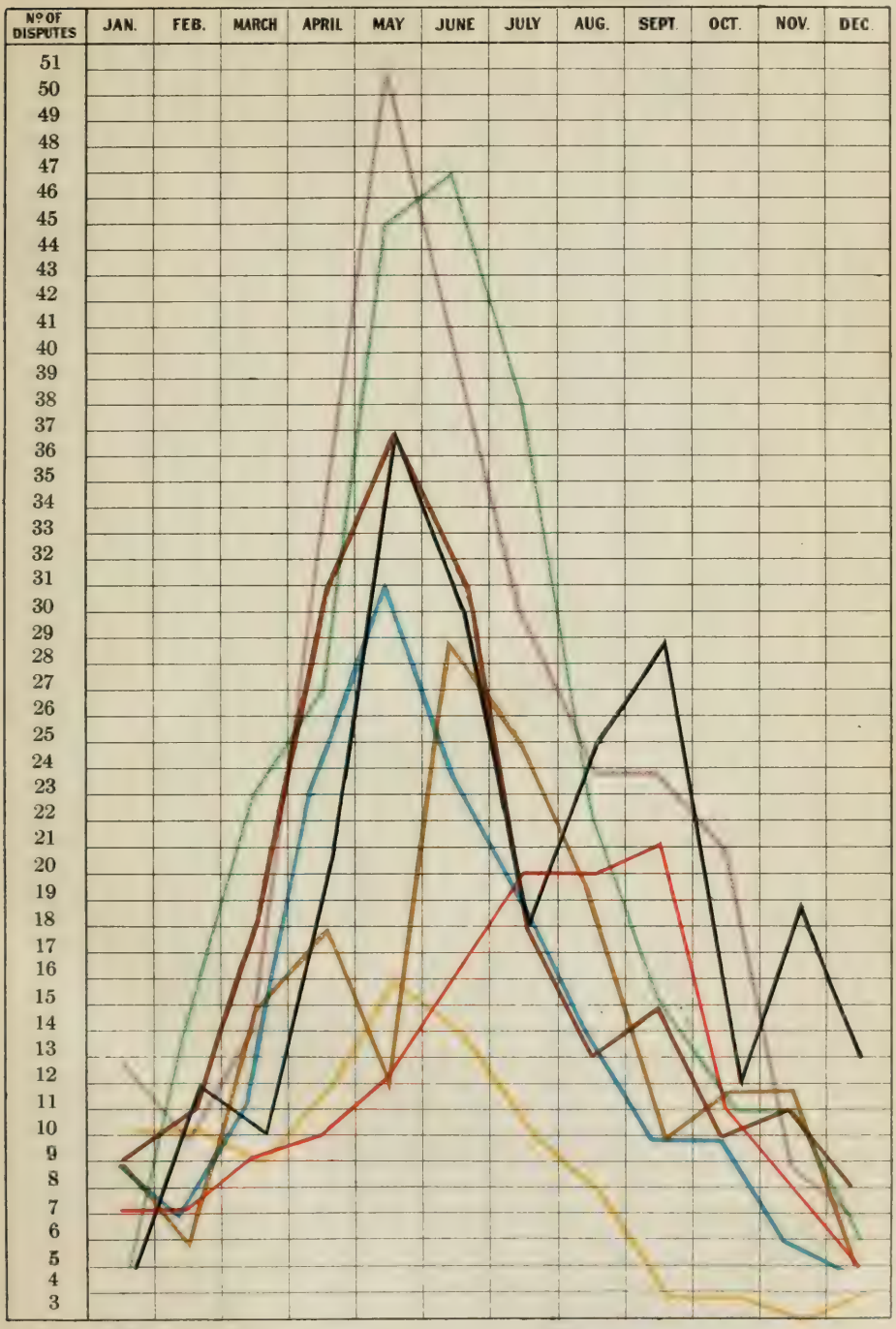
DEPARTMENT OF LABOUR, CANADA.
STATISTICAL CHART, IX, A. R. No. 1

CHART SHOWING VARIATION IN NUMBER OF EMPLOYEES INVOLVED IN TRADE DISPUTES IN CANADA EACH MONTH DURING 1901 TO 1908 INCLUSIVE.



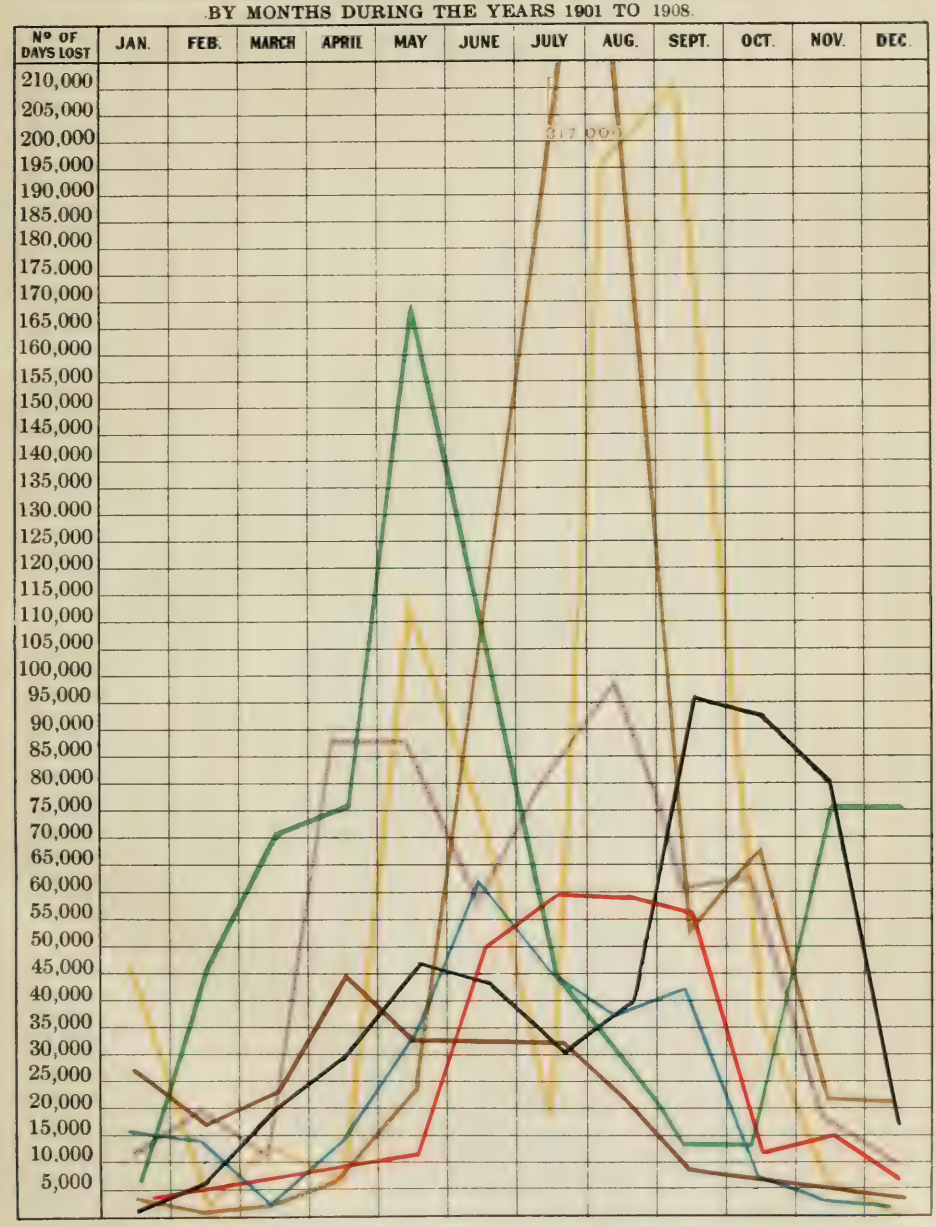
Department of Labour, Canada.
Statistical Chart, IX, A. R. No. 2

CHART SHOWING THE NUMBER OF TRADE DISPUTES BY MONTHS IN CANADA DURING THE YEARS 1901 TO 1908 INCLUSIVE.



Department of Labour, Canada.
Statistical Chart, IX. A. R. No. 3

CHART SHOWING LOSS OF TIME IN WORKING DAYS THROUGH TRADE DISPUTES BY MONTHS DURING THE YEARS 1901 TO 1908.



The following table shows the approximate number of employees affected by trade disputes during 1908, according to the month in which they began:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 14.

TOTAL NUMBER OF EMPLOYEES INVOLVED IN TRADE DISPUTES, WHICH BEGAN DURING THE CALENDAR YEAR 1908.

	Directly.	Indirectly.	Total.
January	1,795	414	2,209
February	350	150	500
March	1,353	.....	1,353
April	854	25	879
May	9,366	340	9,706
June	608	100	708
July	465	3	468
August	9,182	.....	9,182
September	135	40	175
October	390	150	540
November	48	371	419
December	111	.....	111
	24,657	1,593	26,250

The above figures show that the greatest number of employees were involved in trade disputes which began in the month of May, the month of August coming next. In only two other months, namely, January and March, were more than 1,000 employees involved in new disputes, whereas in 1907, there were 9 months in which more than 1,000 employees were involved.

The following table shows approximately the number of firms or establishments affected by trade disputes during the year:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 15.

APPROXIMATE NUMBER OF FIRMS OR ESTABLISHMENTS AFFECTED BY TRADE DISPUTES IN CANADA, WHICH BEGAN DURING THE CALENDAR YEAR 1908.

Month.	Number of firms affected.		Total
	Directly.	Indirectly.	
January	7	.....	7
February	6	.....	6
March	11	.....	11
April	24	6	30
May	56	.....	56
June	15	.....	15
July	32	.....	32
August	6	.....	6
September	2	.....	2
October	2	.....	2
November	2	.....	2
December	4	.....	4
Total	167	6	173

From this table it may be seen that more employers were affected by disputes which began in May than in any other month. The month of July came next followed closely by April. In the four months from April to July, no less than 133 firms were affected, out of a total of 173 for the whole year.

DISPUTES BY MONTHS.

The preceding tables show that the greatest number of disputes occurred in the month of May, April having the next highest number. The table given below shows the number of disputes by months during the last eight years.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 16.

TABLE SHOWING TRADE DISPUTES IN CANADA BY MONTHS DURING THE YEARS 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Month.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
January	7	8	6	9	6	12	8	7	63
February	3	5	12	5	4	6	3	6	44
March	13	12	22	9	6	8	8	5	83
April	12	20	23	20	8	13	28	9	133
May	7	27	29	23	11	28	33	14	170
June	23	18	23	9	12	14	20	6	125
July	14	7	15	6	13	8	15	3	81
August	5	6	11	6	8	17	12	6	71
September	5	9	7	3	9	15	8	2	58
October	5	4	6	8	3	3	7	2	38
November	7	7	3	2	3	12	3	2	39
December	3	.....	3	3	4	2	3	4	22
Total	104	123	160	103	87	138	146	66	927

The variation in the total number of trade disputes in existence from month to month during the years 1901 ot 1908, inclusive, is shown in Chart No. 2, following page 160.

NUMBER OF DISPUTES ACCORDING TO INDUSTRIES AND TRADES AFFECTED.

The following table indicates the number of disputes in the various industries and trades during the year 1908:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 17.

TABLE SHOWING INDUSTRIAL DISPUTES BY INDUSTRIES AND TRADES IN CANADA DURING THE CALENDAR YEAR 1908.

Trades.	Number of Disputes.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Agriculture	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fishing	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumbering	1	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	4
Mining and quarrying	1	1	.....	2	3	1	.....	.....	.....	.....	.....	2	10
Building	.....	.....	.....	4	4	1	1	1	.....	.....	.....	1	12
Metal working and shipbuilding	3	.....	.....	1	2	2	.....	1	.....	.....	.....	.....	9
Wood working and furnishing trades	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Textile trades	.....	2	1	.....	3	.....	.....	.....	.....	.....	.....	.....	6
Clothing trades	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2	1	5
Food and tobacco preparation	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Leather	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing and book-binding	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Transport	.....	.....	.....	2	1	.....	1	2	1	.....	.....	.....	7
Unskilled labour	.....	1	1	.....	1	2	.....	2	.....	1	.....	.....	8
Miscellaneous trades	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	2
Total	7	6	5	9	14	6	3	6	2	2	2	4	66

The following table shows approximately the number of employees affected by trade disputes during 1908, according to their respective trades and industries:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 18.

TABLE SHOWING BY TRADES AND INDUSTRIES APPROXIMATE NUMBER OF EMPLOYEES AFFECTED BY TRADE DISPUTES IN CANADA DURING THE CALENDAR YEAR 1908.

Industry or Trade.	Approximate No. of Employees.
Lumbering	428
Mining and quarrying	4,039
Building	1,561
Metal working and shipbuilding	960
Textile trades	7,542
Clothing trades	950
Food and tobacco preparation	83
Printing and bookbinding	40
Transport	8,482
Miscellaneous trades	416
Unskilled labour	1,695
Total	26,196

From the above table it may be seen that there were more employees affected in the transportation industries than in any other. This was due to the general strike of machinists of the Canadian Pacific Railway Company. The next highest number was in the textile trades followed by the mining and quarrying industries.

The following table shows the number of disputes in each trade or industry from 1901 to 1908, inclusive, from which it may be seen that by far the largest number have been in the building and metal trades:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 19.

TABLE SHOWING INDUSTRIAL DISPUTES BY INDUSTRIES AND TRADES IN CANADA DURING THE YEARS 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Trades.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
Agriculture					2				2
Building	14	28	44	29	19	29	45	12	220
Metal	23	31	17	16	13	21	17	9	147
Woodworking and lumbering	4	10	9	3	2	12	6	5	51
Textile	6	1	5	3	1	4	6	6	32
Clothing	10	9	11	12	11	9	17	5	84
Food and tobacco preparation	9	10	6	11	4	8	50	1	50
Leather	1	3	4	1		3	5		17
Printing and bookbinding	2	3	3	5	7	6	2	1	29
Transport	4	4	18	2	4	15	14	7	68
Longshoremen	5	4	4		1	1	3		18
Mining	5	3	9	6	12	13	14	10	72
Fishing	2	1	1	2		1	1		8
Unskilled	11	6	9	3	2	12	7	8	58
Miscellaneous	8	10	20	10	9	5	7	2	71
Total	104	123	160	103	87	138	146	66	927

DISPUTES BY LOCALITIES AFFECTED.

The following table shows the number of trade disputes which occurred in the different provinces of Canada classified according to the months in which they began:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 20.

TABLE SHOWING TRADE DISPUTES IN CANADA BY PROVINCES DURING THE CALENDAR YEAR 1908.

Province.	Number of Disputes.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Nova Scotia	...	1	...	...	2	...	...	...	...	...	...	...	3
Prince Edward Island	...	...	...	...	...	...	...	...	...	...	...	...	...
New Brunswick	...	...	2	1	...	1	...	2	...	...	...	...	6
Quebec	3	4	1	...	5	...	1	1	1	1	1	1	19
Ontario	3	1	1	6	4	3	2	2	1	1	1	1	26
Manitoba	...	...	1	...	...	...	...	...	...	...	...	...	1
Saskatchewan	...	...	...	...	...	1	...	...	...	...	...	...	1
Alberta	...	...	...	1	1	...	...	...	...	...	...	1	3
British Columbia	1	...	...	1	2	1	...	...	...	...	...	1	6
More than one province affected	...	...	...	...	...	...	...	1	...	...	...	...	1
Total	7	6	5	9	14	6	3	6	2	2	2	4	66

The number of disputes which took place in each province during the past eight years is given on the table below, from which it appears that out of 927 disputes, 443 occurred in the Province of Ontario and 206 in the Province of Quebec.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 21.

TABLE SHOWING TRADE DISPUTES IN CANADA ACCORDING TO PROVINCES FOR THE YEARS 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Locality.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total
Nova Scotia	5	12	7	7	7	11	12	3	64
Prince Edward Island	...	2	...	...	...	...	...	...	2
New Brunswick	3	7	7	2	5	8	8	6	46
Quebec	29	20	33	31	21	24	29	19	206
Ontario	53	65	83	52	32	61	71	26	443
Manitoba	3	8	1	4	9	9	6	1	41
Saskatchewan	...	...	...	...	...	...	1	1	2
Alberta	...	1	5	1	2	13	6	3	31
British Columbia	10	8	24	4	10	12	11	6	85
More than 1 province affected	1*	...	...	2†	1††	...	2§	1	7
Total	104	123	160	103	87	138	146	66	927

* Dispute affected all provinces in Dominion with exception of Prince Edward Island.
† First dispute affected Ontario, Manitoba, Saskatchewan and Alberta; second affected same provinces with the addition of British Columbia.
†† Dispute took place in Quebec and Ontario.
§ One dispute took place in Quebec, Ontario and Manitoba, and the other in Alberta and British Columbia.
§§ Dispute affected all provinces except Prince Edward Island and Nova Scotia.

LOSS OF TIME IN WORKING DAYS.

The following table shows the number of working days estimated to have been lost by employees through trade disputes each month during 1908:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 22.

TABLE SHOWING LOSS OF TIME IN WORKING DAYS TO EMPLOYEES THROUGH TRADE DISPUTES IN CANADA BY MONTHS DURING 1909.

Month.	Loss in Working Days.
January	47,670
February	2,319
March	13,273
April	7,343
May	114,900
June	72,293
July	19,390
August	195,235
September	210,435
October	37,880
November	5,174
December	531
Total	718,443

Chart No. 3. following page 160, shows the variation from month to month in the number of working days lost in each of the years from 1901 to 1908, inclusive.

The following table shows the approximate loss of time to employees through trade disputes during the year classified according to the various trades and industries affected:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 23.

TABLE SHOWING APPROXIMATE LOSS OF TIME TO EMPLOYEES THROUGH TRADE DISPUTES IN CANADA DURING THE YEAR 1908, CLASSIFIED ACCORDING TO TRADES AFFECTED.

Industry or Trade	Approximate loss of time in working days.
Lumbering	14,065
Mining	41,937
Building trades	20,960
Metal and shipbuilding trades	51,887
Woodworking trades	1,326
Printing and bookbinding	360
Textile trades	134,462
Clothing trades	17,058
Food and tobacco preparation	1,328
General transport	425,572
Miscellaneous trades	5,648
Unskilled labour	3,840
Total	718,443

CAUSES OF TRADE DISPUTES.

The principal causes of the strikes and lockouts which took place in 1908 are set forth in the following table arranged according to the months in which they began:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES IX. A. R. No. 24.

TABLE SHOWING BY MONTHS THE CAUSES OF TRADE DISPUTES WHICH BEGAN IN CANADA DURING 1908.

Causes.	Number of Disputes.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
For increase in wages	....	2	1	5	3	3	1	3	1	..	2	....	21
Against reduction in wages	5	1	1	1	4	...	1	1	...	...	...	...	14
For increase in hours	...	...	...	...	1	1	...	...	...	1	...	...	3
For increase in wages and decrease in hours	...	...	...	1	...	...	...	...	...	...	...	...	1
For increase in wages and against increase in hours	...	...	...	1	...	...	...	...	...	...	...	...	1
For decrease in hours and other changes	...	...	...	...	...	1	...	...	...	...	...	...	1
Against increase in hours	...	1	...	...	...	...	...	1	...	...	...	...	2
Against employment of non-unionists	1	...	...	...	1	...	...	...	...	...	...	1	3
Against employment of persons other than non-unionists	...	...	1	...	...	...	...	...	...	...	...	...	1
Against discharge of employees	...	1	1	...	3	...	1	...	...	...	...	...	6
Dispute over pay day	...	...	...	...	...	...	...	...	...	...	...	1	1
Against conditions of employment	...	...	...	...	...	1	...	1	...	...	...	1	3
Against reduction in wages and increase in hours	...	...	1	...	...	...	...	...	...	...	...	...	1
Against reduction in wages and employment of non-unionists	...	...	...	...	1	...	...	...	...	...	...	...	1
Against delay in payment of wages	...	...	...	...	...	...	...	...	1	...	...	...	1
Sympathetic	...	...	...	...	...	...	...	...	...	1	...	...	1
Unclassified	1	1	....	1	1	....	....	....	....	....	....	1	5
Total	7	6	5	9	14	6	3	6	2	2	2	4	66

The following table shows the causes of trade disputes which began in each year from 1901 to 1908:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 25.

TABLE SHOWING CAUSES OF TRADE DISPUTES IN CANADA WHICH BEGAN DURING 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908, RESPECTIVELY.

Causes.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
For increase in wages	48	54	60	36	30	55	65	21	369
Against reduction in wages	10	7	7	7	8	3	3	14	59
For decrease in hours	1	7	8	3	3	7	11	3	43
For increase in wages and decrease in hours	5	14	18	8	4	7	8	1	65
Against employment of particular persons	13	8	13	16	9	13	20	4	96
Against conditions of employment	...	5	5	4	8	3	5	3	33
For recognition of union	...	5	5	4	1	5	3	....	23
Sympathetic	...	9	10	3	1	2	2	1	28
Unclassified	27	14	34	22	23	43	29	19	211
Total	104	123	160	103	87	138	146	66	927

METHODS OF SETTLEMENT.

The following table illustrates the methods by which trade disputes were settled during 1908, arranged according to the month in which they were terminated:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 26.

TABLE SHOWING METHODS OF SETTLEMENT OF TRADE DISPUTES IN CANADA DURING 1908.

Method.	Number of Disputes.												
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total.
Arbitration	....	....	....	....	....	1	....	....	....	....	1	....	2
Conciliation	1	1	....	....	1	....	....	....	....	1	....	....	4
Negotiations between parties concerned	1	1	2	....	2	2	1	1	....	....	....	3	13
Replacement of strikers	1	1	1	5	4	3	....	1	2	....	....	....	18
Work resumed on employer's terms (without negotiations)	2	2	2	1	2	....	5	4	1	2	2	....	23
Demands of strikers granted (without negotiations)	....	1	....	3	....	....	1	....	....	....	....	....	5
Work resumed pending government inquiry	....	....	....	....	....	1	....	....	....	....	....	....	1
Indefinite, unsettled or not reported	1	....	....	....	....	....	1	....	....	....	....	1	3
Total	6	6	5	9	9	7	8	6	3	3	3	4	69

A comparison of the methods of settlement of trade disputes during the years from 1901 to 1908 is given below:

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 27.

TABLE SHOWING METHODS OF TRADE DISPUTES IN CANADA DURING 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Method.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
Arbitration	5	6	6	4	....	3	4	2	30
Conciliation	6	5	14	5	3	4	7	4	48
Negotiations between parties concerned	55	73	77	37	41	67	66	13	429
Replacement of men	13	12	15	10	24	18	26	18	136
Work resumed on employer's terms (without negotiations)	13	20	26	25	12	28	26	23	173
Demands of strikers granted (without negotiations)	....	....	19	7	5	3	2	5	41
Work resumed (employer not involved)	....	....	....	....	1	4	5	....	10
Employment found elsewhere by strikers	....	....	....	....	....	3	3	....	6
Unsettled at end of year	12	5	12	13	....	9	12	1	64
Not reported	....	2	1	2	1	....	....	3	9
Total	104	123	170	103	87	139	151	69	946

Most of the disputes in the above table marked unsettled were terminated in the year following the one in which they are placed.

RESULTS OF TRADE DISPUTES.

The following table shows the results of trade disputes which were in existence during 1908, arranged according to the months in which they were terminated :—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 28.

TABLE SHOWING RESULTS OF TRADE DISPUTES IN CANADA DURING 1908.

Result.	Number of Disputes.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
In favour of employers	3	3	4	5	6	5	5	5	3	2	2	....	43
In favour of employees	....	2	....	4	1	2	3	1	....	....	....	....	13
Settled by compromise	2	1	1	....	2	....	....	....	....	1	1	2	10
Indefinite, unsettled or not reported	1	....	....	....	....	....	....	....	....	....	....	2	3
Total	6	6	5	9	9	7	8	6	3	3	3	4	69

The results of trade disputes which have taken place in Canada during the past eight years are shown in the following table :—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 29.

TABLE SHOWING RESULTS OF TRADE DISPUTES IN CANADA DURING 1901, 1902, 1903, 1904, 1905, 1906, 1907 AND 1908.

Results.	Number of Disputes.								
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
In favour of employers	40	35	46	34	37	45	57	43	337
In favour of employees	39	46	45	24	24	41	33	13	265
Settled by compromise	22	33	46	28	15	23	39	10	216
Employees partially successful	....	....	....	6	....	6	3	....	15
No change (employers not concerned)	....	....	....	....	1	3	3	....	7
Indefinite (unsettled or terms unknown)	....	4	10	9	10	22	16	3	74
Total	101	118	147	101	87	140	151	69	914

The following table contains an analysis of the principal causes of the trades disputes which began during 1908, classified according to their results:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 30.

TABLE SHOWING CAUSES AND RESULTS OF TRADE DISPUTES IN CANADA DURING THE CALENDAR YEAR 1908.

Causes.	Results.				
	In favour of employers.	In favour of employees.	Settled by compromise.	Indefinite, unsettled or terms not reported	Total.
For increase in wages	13	5	4	.....	22
Against reduction in wages	8	3	2	1	14
For decrease in hours	1	.....	1	1	3
For increase in wages and decrease in hours	.....	1	.....	.....	1
For increase in wages and against increase in hours	1	.....	.....	.....	1
For decrease in hours and other changes	.....	1	.....	.....	1
Against increase in hours	2	.....	.....	.....	2
Against employment of non-unionists	2	.....	.....	1	3
Against employment of persons other than non-unionists	1	.....	.....	.....	1
Against discharge of employees	6	.....	.....	.....	6
Dispute over pay day	.....	.....	1	.....	1
Against conditions of employment	3	.....	1	.....	4
For increase in wages, shorter hours and closed shops	.....	1	.....	.....	1
Against reduction in wages and increase in hours	.....	.....	1	.....	1
Against reduction in wages and employment of non-unionists	1	.....	.....	.....	1
Against delay in payment of wages	1	.....	.....	.....	1
Sympathetic	1	.....	.....	.....	1
Unclassified	3	2	.....	.....	5
	43	13	10	3	69

XIII.—INDUSTRIAL ACCIDENTS IN CANADA DURING 1908, WITH COMPARATIVE STATISTICS FOR THE YEARS 1904, 1905, 1906 AND 1907.

The statistics relating to industrial accidents collected by the Department during the calendar year 1908, show a considerable decrease in the number of accidents recorded as compared with the preceding year. In all, 1,272 fatal and 2,277 non-fatal accidents were reported in 1908, compared with 1,353 fatal and 2,752 non-fatal accidents in 1907. The decrease is doubtless to be attributed to the falling off in general industrial activity which followed the financial stringency of the autumn of 1908.

As in previous years, the summer months, during which industrial activity is at its height in Canada, showed a proportionately larger return of accidents.

The branch of industry involving the largest number of fatalities to employees during 1908 was the railway service, in which no fewer than 326 men lost their lives. Agriculture again ranked second with respect to the number of fatalities, the total number of killed being 223. In the mining industry, 148 were killed, and in the lumbering industry, 113. The next highest total was 84, under the heading of navigation.

Of the non-fatal accidents, the largest number occurred in the metal trades, viz., 364, the railway service standing second with 316, and agriculture third with 291.

Of both fatal and non-fatal accidents, some 974, or over 27% of the total of 3,549 recorded for the year, occurred among workmen employed in transportation. In the preceding year fully one-third of the accidents recorded were among transportation employees.

Comparing the record for 1909 and 1908 in the several groups, it will be seen that increases in the number of fatal accidents occurred in the agricultural and fishing industries, in the building and leather trades, and among civic employees and unskilled labourers. In all the other groups decreases are shown, the net decrease for the year being 81. In the number of non-fatal accidents, an increase is shown in the building and food and tobacco preparation trades alone, all the rest recording decreases which, in the net aggregate, amounted to 475, compared with the preceding year. The increase recorded in the building trades is the more remarkable in that the extent of building operations in progress in Canada was considerably less in 1908 than in 1907. It may be pointed out, however, that although building was much more active in 1907 than in 1906 the returns of accidents were lower. The returns for 1908 are still below those for 1906.

Special importance is to be attached in the tables given below to those which set forth the causes of the accidents in the various trades. It will be seen from these that runaways were responsible for the largest number of fatal accidents in the agricultural industry, while this pre-eminence was

attained by drownings among fishermen, lumbermen and navigation employees, explosions among miners, falls in the building trades, electrical shocks in the metal trades, elevators in the printing and clothing trades, being run over by cars among railway employees, premature blasts among railway construction employees, and falls, flying material and blasts among unskilled labour. Of the non-fatal accidents, the leading causes were: live stock in the agricultural industry, exposure in the fishing industry, machinery and falling material among lumbermen and saw mill employees, explosions and falling stone or earth among miners, falls from scaffolding and buildings among builders, machinery or falling materials in the metal, woodworking, printing, clothing, textile, leather and food and tobacco preparation trades. In the railway service the largest number of non-fatal accidents, viz., 51, occurred through collisions, while under the heading of navigation and general transport the largest number occurred through falls. Among civic employees, 4 were killed and 22 were injured at fires. Eleven unskilled labourers were killed and 59 injured by falling stones, bricks, etc.

The work of collecting and publishing statistics relating to industrial accidents was begun by the department during the year 1904, and the tables which follow are based on the material collected up to the end of the past calendar year. The statistics are gathered from reports appearing in the press of Canada, carefully verified, and from returns received from correspondents of the *Labour Gazette*, from factories and mines inspectors in the several provinces, from the Board of Railway Commissioners of Canada, the Municipal and Railway Board of Ontario, and various individual sources. The only accidents recorded are those incurred by the victims in the course of their employment and causing loss of life or serious impairment in industrial efficiency. Every effort has been made to make the returns as full and reliable as possible, though it is not claimed that they are complete. It is believed, however, that they are essentially accurate, and that they may be accepted as reasonably setting forth the leading elements of danger to employees in the respective occupations.

A series of charts illustrating the fluctuations by months in the number of industrial fatalities in the trades in which the death rate reaches above twenty during the year is added to the statistical tables.

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 31.

TABLE OF FATAL INDUSTRIAL ACCIDENTS DURING 1908.

Trade or Industry.	Number of Accidents according to Months.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Agriculture	13	11	18	22	12	28	16	33	17	21	14	18	223
Fishing and hunting	5	2	4	5	5	7	....	....	6	1	2	....	37
Lumbering	9	6	7	11	29	16	8	9	2	2	8	6	113
Mining	5	19	17	9	16	13	10	10	10	12	9	18	148
Building trades	1	....	2	5	1	8	4	9	4	5	2	5	46
Metal trades	3	4	4	2	7	11	9	10	5	2	3	3	63
Woodworking trades	1	1	2	1	1	....	1	....	....	....	....	....	7
Printing trades	....	....	....	....	....	....	....	....	....	....	....	....	....
Clothing trades	....	....	....	....	....	....	....	....	....	....	1	....	1
Textile trades	1	....	....	....	....	....	....	....	....	....	....	1	2
Food and tobacco preparation	1	1	1	4	3	1	....	....	2	....	....	1	14
Leather trades	....	....	....	1	1	....	....	....	....	....	1	....	3
Railway service	30	24	26	32	22	28	22	12	24	27	56	23	326
Navigation	7	2	3	2	9	4	10	23	7	5	9	3	84
General transport	5	4	1	2	6	5	9	3	7	....	10	2	54
Civic employees	3	....	1	5	1	5	....	4	....	....	....	....	19
Miscellaneous trades	3	11	1	2	9	6	1	3	9	4	6	6	61
Unskilled labour	10	6	5	7	5	4	10	1	10	4	4	5	71
Total	97	91	92	110	127	136	100	117	103	83	125	91	1,272

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 32.

TABLE OF NON-FATAL INDUSTRIAL ACCIDENTS IN CANADA DURING 1908.

Trade or Industry.	Number of accidents according to months.												
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Agriculture	16	15	20	11	27	25	45	35	35	18	22	22	291
Fishing, hunting	....	1	....	....	....	....	....	....	....	....	....	....	1
Lumbering	13	17	4	5	9	14	5	13	3	5	11	16	115
Mining	18	19	15	11	8	24	14	14	16	15	16	17	187
Building trades	7	1	6	12	16	41	34	21	19	22	24	16	219
Metal trades	30	37	34	27	31	39	15	31	30	24	31	35	364
Woodworking trades	11	6	19	11	20	11	8	4	5	5	7	9	116
Printing trades	1	1	1	....	....	2	1	2	1	1	....	2	12
Clothing trades	1	4	3	2	1	1	1	1	....	....	1	1	16
Textile trades	9	2	6	....	5	6	2	....	....	2	....	5	37
Food & tobacco preparation	4	5	5	5	8	7	3	6	3	7	3	7	63
Leather trades	....	....	2	1	....	....	....	....	2	....	....	....	5
Railway service	26	28	23	45	31	32	22	22	12	18	36	21	316
Navigation	1	1	6	9	8	12	4	8	2	4	5	2	62
General transport	10	11	7	11	6	19	13	10	10	13	12	10	132
Civic employees	8	7	2	5	3	4	6	3	5	3	5	4	55
Miscellaneous trades	9	14	13	18	20	9	9	27	6	11	9	11	156
Unskilled labour	9	8	12	11	8	17	9	12	5	14	16	9	130
Total	173	177	178	184	201	263	191	209	154	162	198	187	2277

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 33.

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908.

AGRICULTURE.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Struck and run over by trains	26	19	23	33	24	7	10	7	13	8
Injured by live stock	18	18	29	19	29	19	41	45	44	53
Falling from vehicles	14	27	11	...	...	24	54	9	...	...
Run over by vehicles	3	21	4	10	15	6	23	2	6	11
Injured by machines and tools	8	14	16	14	17	18	43	78	61	40
Falling from haylofts, barns, stacks, etc	5	13	27	24	21	10	22	62	73	51
Injured when raising barns	4	2	...	...	...	7	6	...	...	...
Struck by lightning	7	3	18	7	13	....	.....	2	3	6
Exposure and cold	4	.....	6	7	7	.....	2	2	4	6
Struck by falling trees	1	8	7	25	.....	3	11	18	21	.....
Injured when sawing and chopping wood	1	1	1	.....	.....	10	10	1	.....	.....
Injured by cave-in of pits, etc	2	5	.....	.....	22	1	7	.....	.....	40
Injured when blasting	1	.....	5	8	9	3	3	10	18	13
Blood poisoning	9	.....	3	2	1	10	4	...	.....	...
Burned to death in prairie fire	.....	.....	1	1	6	.....	.....	.....	.....	2
Drowned	.....	...	8	13	15	.....	...	.....	.....	.....
Injured in runaways	....	...	.....	28	36	.....	.....	.....	28	39
Struck by wagon pole	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Explosion of traction engine	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
Smothered in snow slide	.....	.....	.....	7	.....	.....	.....	.....	.....	.....
Injured by other falling material	.....	....	.....	2	.....	.....	.....	...	15	.....
Injured by tools	.....	.....	.....	2	1	....	.....	.....	6	17
Stung by bees	.....	.....	....	1	.....	.....	.....	.....	1	.....
Sunstroke	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Accidentally shot	... ..	.. ..	....	1	.....	.....	.....	.....	1	.....
Struck by flying objects	.....	.....	.....	.....	5	.....	.....	.....	.....	2
Collisions	.....	.....	.....	.....	2	.....	.....	.....	.....	3
Unclassified	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Total	103	132	159	209	223	121	241	236	295	291

FISHING AND HUNTING.

Drowned	16	13	15	16	33	.....	.....	.....	.....	.....
Caught in bear trap	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Attacked by moose	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Injured by falls	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
Contact with ice hook	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Injured by exposure, cold, etc	.....	.....	.....	1	4	.....	.....	.....	4	1
Total	16	13	15	17	37	1	1	3	4	1

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

LUMBERING AND SAW-MILLING.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1	1904		1906	1907	1908
Struck by falling trees	17	14	25	20	26	3	15	15	9	11
Struck by logs	4	4	9	11	.....	6	13	7	10	.....
Injured by dynamite explosion	1	2	5	2	1	.....	.....	6	5	6
Drowned	22	13	30	44	39	.....	.....	.....	.....	.....
Frozen	.....	2	1	.....	.....	2	.....	2	1	.....
Falling of logs	1	.....	3	4	.....	.....	2	9	8	.....
Run over by railway cars	3	2	3	4	1	2	.....	3	.....	.....
Struck by wood flying from saws, etc.	5	8	7	12	2	4	17	9	2	3
Struck by falling lumber	.....	2	2	.....	.....	5	8	8	.....	.....
Struck by axes when chopping trees	.....	.....	.....	.....	.....	11	15	9	4	.....
Injured by machines and engines	3	8	26	18	21	36	33	88	79	48
Injured by boiler explosions	6	10	.....	.....	.....	2	8	.....	.....	.....
Injured by saws	4	6	.....	.....	1	34	15	.....	1	8
Injured by bursting of an emery wheel	1	1	5	.....	.....	.....	20	.....	.....	.....
Crushed between cars	1	.....	.....	1	.....	1	1	.....	.....	.....
Injured by bursting of refuse machine	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Overwhelmed in mud slides, etc	1	2	.....	1	1	14	8	.....	.....	.....
Gunshot wound	.....	.....	2	1	1	.....	.....	.....	.....	.....
Falls, general	.....	.....	.....	2	3	.....	.....	.....	.....	6
Run over by dump cart	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Killed by a bear	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Falling material	.....	.....	.....	7	12	.....	.....	.....	18	29
Struck by lightning	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Unclassified	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Runaways	.....	.....	.....	.....	2	.....	.....	.....	.....	1
Being run over	.....	.....	.....	.....	4	.....	.....	.....	.....	.....
Exposure	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Live stock	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total	69	75	119	129	113	120	155	156	138	115

MINING.

Explosions in mines	33	15	20	53	48	11	39	42	67	62
Blasting	3	1	.....	.....	.....	13	5	.....	.....	.....
Falling down mine shafts and chutes	8	5	8	3	22	3	8	9	1	13
Struck by cars, trips, etc	8	2	13	25	24	6	7	14	26	31
Struck by falling stone and earth, etc	14	19	16	10	32	18	26	9	5	59
Struck by falling coal	11	16	32	11	.....	12	18	57	20	.....
Crushed between cars, car and mine wall, box and pit props, etc	1	3	7	4	.....	10	10	16	17	.....
Machinery, belting, etc	2	2	7	8	4	.....	12	14	15	5
Falling from scaffolds and trestles	3	2	.....	.....	.....	1	.....	.....	.....	.....
Falling in various ways not specified	5	1	.....	11	.....	6	.....	.....	6	.....
Run over by cars	1	2	4	3	4	2	4	1	2	12
Struck by falling wood, etc	.....	2	.....	29	.....	2	2	1	60	.....
Crushed by cave-in	5	.....	.....	2	.....	.....	.....	.....	.....	.....
Suffocated by gas, etc	6	.....	.....	2	7	.....	.....	.....	.....	.....
Drowned	.....	.....	2	16	6	.....	.....	.....	2	.....
Struck by snow slides	.....	.....	6	.....	.....	.....	.....	3	.....	.....
Kicked by a mule	.....	.....	.....	.....	.....	.....	.....	1	2	.....
Injured by explosives	.....	.....	1	.....	.....	.....	.....	.....	1	.....
Injured by electric shock	.....	.....	3	1	1	.....	.....	.....	.....	.....
Injured by exposure	.....	.....	.....	2	.....	.....	.....	.....	2	.....
Caught in a "bump"	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Unclassified	13	.....	.....	.....	.....	33	4	.....	.....	.....
Injured by live stock	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Injured by molten metal	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Injured by passing objects	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total	103	70	119	181	148	117	135	167	226	187

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

BUILDING TRADES.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Falling from buildings	13	9	4	5	13	23	48	30	17	39
Falling from scaffoldings, etc	5	20	8	2	10	38	78	45	26	98
Falling through a floor	2						1			
Collapse of building and wall	2					10	9			
Falling from a ladder						14	5	7		
Falling in various ways not specified	1	3	25	18	7	12	1	109	102	21
Railway accidents	4	4	3	2	1	2		1		1
Struck by falling stones and bricks	3	3	1	1		6	21	3		
Struck by falling timber	1		1			13	15	13	3	
Struck by derricks	2	1	1	1	1	1	3	5	3	
Struck by falling metal						2	2			
Struck by falling window sash		1				2				
Struck by other falling material	2		2	1	3	2	3	20	26	28
Injured by elevators and hoists	2			1	1	2	1	1	2	4
Injured by electric shock	3	2			5	1		1		
Injured by tools		1				7	11	3	4	
Drowned	2	1	6		3		2			
Injured by machinery					1			17	20	5
Burnt to death			1							
Injured by explosion			3					2	7	16
Asphyxiated by gas			2					1		2
Sunstroke or struck by lightning			2	1				4		1
Injured by wood projected from saw									1	2
Died from lockjaw				1						
Unclassified	1	1				3	1			
Blood poisoning					1					1
Boiling tar										1
Total	43	46	59	33	46	138	201	262	211	219

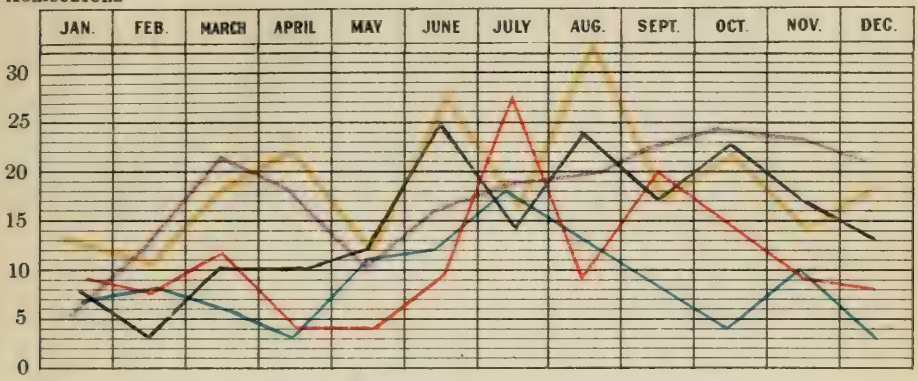
TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

METAL TRADES.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Injured by machinery, belting &c.	12	7	8	15	7	108	147	251	201	131
Injured by tools	3	1				15	7	7	6	10
Struck by falling material	9	5	7	21	6	92	63	94	129	82
Injured by hot or molten metal			1	1		55	40	52	31	
Injured by electric shock	5	11	14	16		11	13	8	10	34
Injured by elevators and hoists	4	1	1	6	3	14	6	6	15	4
Falling from scaffold, &c	9	5	7			9	22	25		
Collapse of scaffolding	2		1			11	2	15		
Falling from buildings	4		1	14		6	3		102	
Falling from bridges	4	3				2	5	1		
Falling from poles	3	1				11	5			
Falling in various ways not specified	4	2	2		17	22	14	40		46
Injured by derricks and cranes	1	5	2	1		4	9	1	2	1
Bursting of wheels	2	2				3	5	4		
Injured by boiler explosions	2	3	2		4	14	5	7		3
Struck by falling wood, poles, &c	5	1	4			1	10	33	16	
Injured by saws						2				
Injured by shears						6	4			
Injured by drop hammers						7	3	1		
Injured by trip hammers						6	7		1	
Overcome by gas	1	1	1			2			1	
Scalded by water, steam, &c		1	5			9	4	3		
Injured by electricity					19		1	1		18
Injured by explosions of gas, powder, &c				1	1	4	6	4	44	15
Crushed by presses						24	26	3		
Crushed by cars		3	1	5	3	2	5		7	13
Struck by wood flying from a saw						1	2			
Struck by lever	1						1			
Struck by hook						1	1			
Crushed between girders						2	1			
Crushed in other ways			1			4	1	3		
Injured by chains						2	1			
Cut by a die						1	2			
Run over by a cart						1	1			
Drowned	2	2	9	3	3					1
Injured when grinding							1			
Injured by lathes						3				2
Injured by live stock				2				3	2	
Sunstroke while repairing boilers			1							
Gunshot wounds									1	
Dropped dead while shoeing horse				1						
Railway accident				5					2	3
Collapse of bridge at Quebec				63						
Unclassified	1	2				35	1			
Foot pierced by nail										1
Total	74	56	68	154	63	490	424	562	570	364

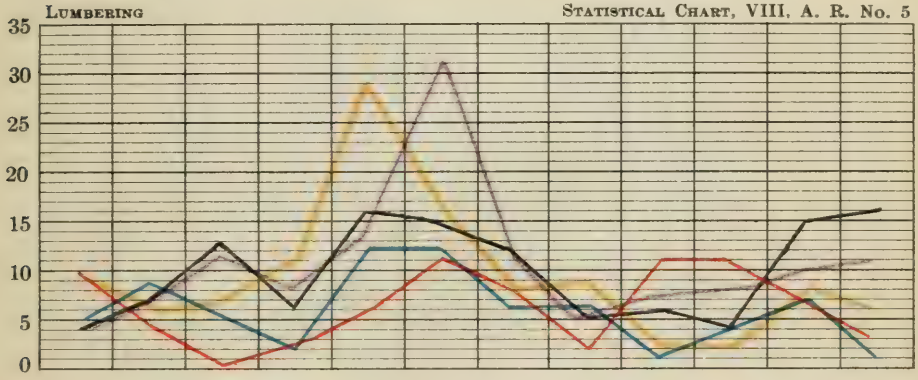
DIAGRAMS SHOWING NUMBER OF FATAL ACCIDENTS BY MONTHS IN VARIOUS TRADES AND INDUSTRIES THROUGHOUT THE PERIOD 1904 TO 1906.

Agriculture



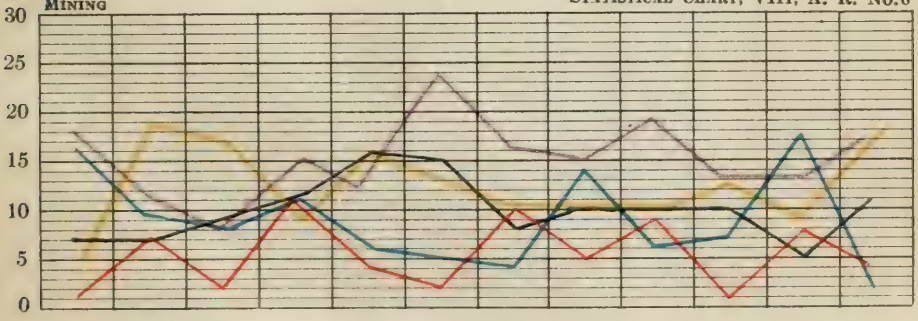
Lumbering

Statistical Chart, VIII, A. R. No. 5



Mining

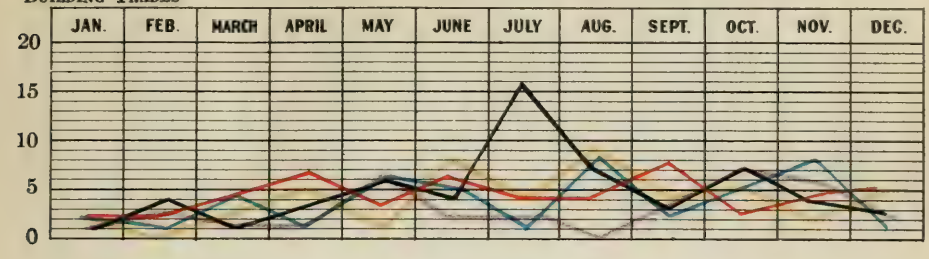
Statistical Chart, VIII, A. R. No.6



1904
1905
1906
1907
1908

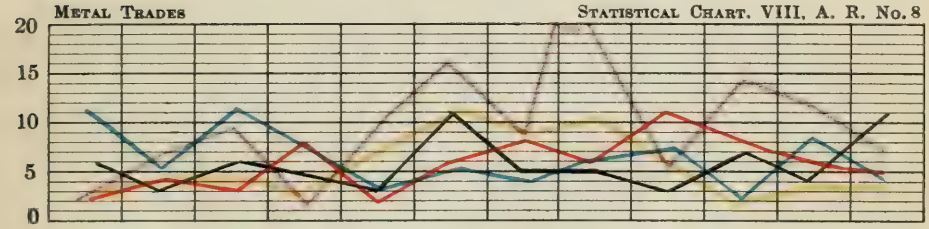
DIAGRAMS SHOWING NUMBER OF FATAL ACCIDENTS BY MONTHS IN VARIOUS TRADES AND INDUSTRIES THROUGHOUT THE PERIOD 1904 TO 1906.

Building Trades



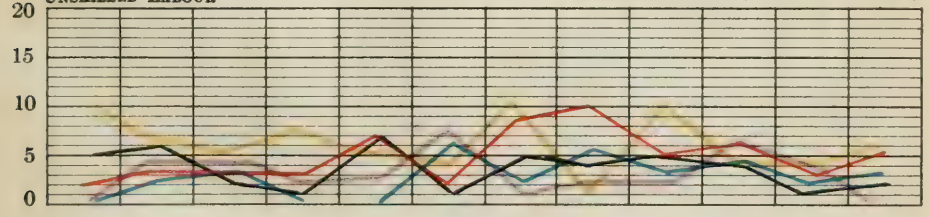
Metal Trades

Statistical Chart, VIII, A. R. No. 8



Unskilled Labour

Statistical Chart, VIII, A. R. No. 9

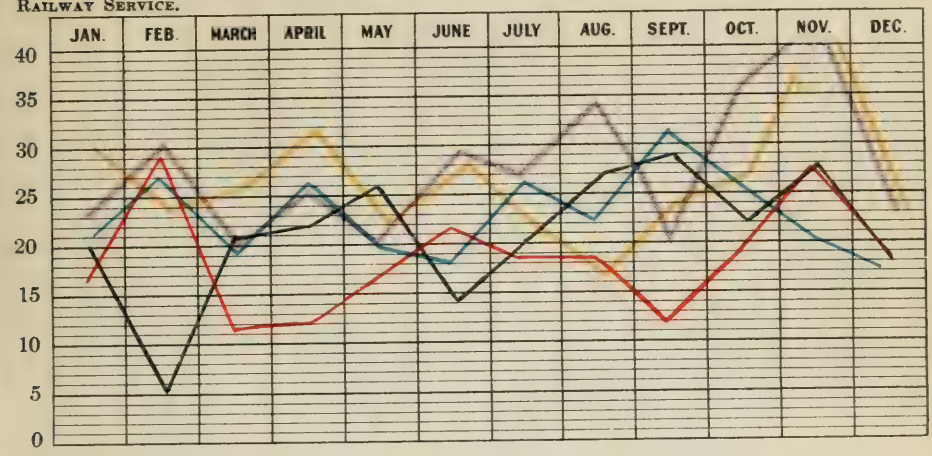


1904
1905
1906
1907
1908

Department of Labour, Canada.
Statistical Chart, VIII, A. R. No. 10

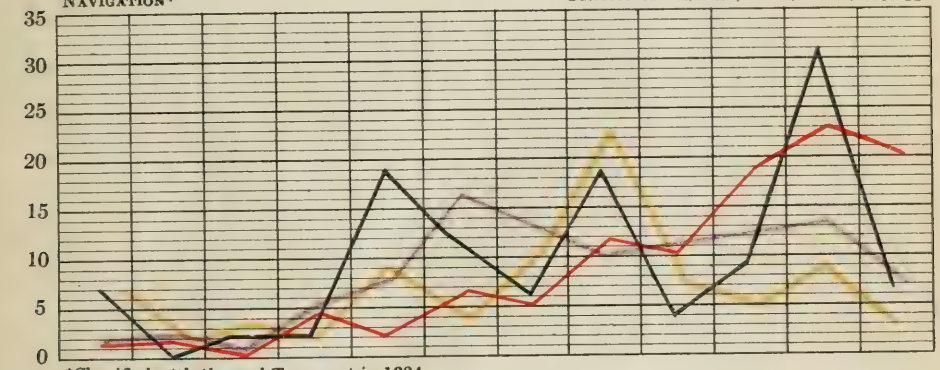
DIAGRAMS SHOWING NUMBER OF FATAL ACCIDENTS BY MONTHS IN VARIOUS TRADES AND INDUSTRIES THROUGHOUT THE PERIOD 1904 TO 1906.

Railway Service.



Navigation*

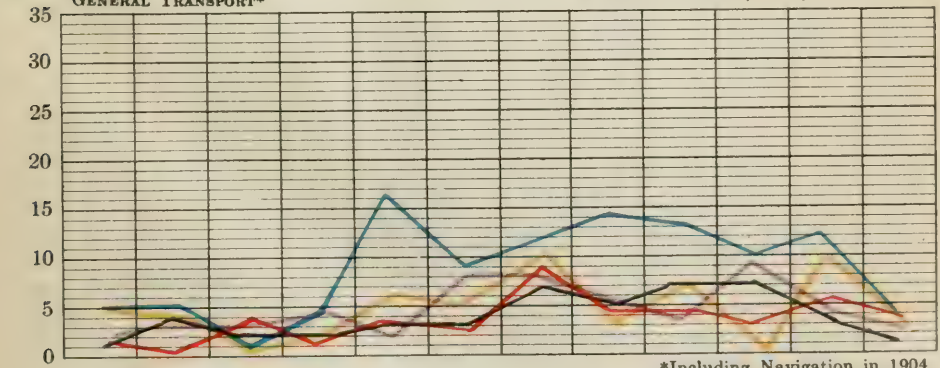
Statistical Chart, VIII, A. R. No. 11



*Classified with General Transport in 1904.

General Transport*

Statistical Chart, VIII, A. R. No. 12



*Including Navigation in 1904.

1904
1905
1906
1907
1908

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

WOODWORKING TRADES.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Injured by machinery, belting &c.	3	3	2	5	3	46	28	118	123	88
Injured by saws	1	.....	1	.....	1	45	46	.....	.....	.....
Struck by wood flying from saws, planers, &c.	3	1	1	...	2	7	6	3	8	12
Scalded by boiling water	2	1	.....	.....	1	1	1	.....	.....	1
Injured by elevators and hoists	2	1	.....	2	.....	2	4	1	1	1
Injured by shapers	.....	.....	.....	.....	.....	10	6	.....	.....	.....
Injured by planers	.....	.....	.....	.....	.....	6	15	.....	.....	.....
Injured by jointers	.....	.....	.....	.....	.....	6	9	.....	.....	.....
Injured by knives	.....	.....	.....	.....	.....	4	5	.....	.....	.....
Injured by other tools	.....	.....	.....	.....	.....	3	2	.....	.....	.....
Injured by cutters	.....	.....	.....	.....	.....	3	2	.....	.....	.....
Injured by sanding disc	.....	.....	.....	.....	.....	3	2	.....	.....	.....
Injured by presses	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Struck by falling material	.....	.....	.....	1	.....	3	3	2	5	10
Injured by spindle carver	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Falling from vehicle	1	.....	.....	.....	.....	.....	2	.....	.....	.....
Falling and jumping from a building	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Falling in ways not specified	.....	.....	.....	.....	.....	3	6	4	1	4
Railway accidents	.....	2	.....	.....	.....	.....	1	.....	.....	.....
Explosion of boiler	.....	.....	.....	.....	.....	.....	.....	5	.....	.....
Unclassified	.....	.....	.....	.....	.....	7	2	.....	.....	.....
Total	12	8	4	8	7	154	140	133	138	116

PRINTING TRADES.

Crushed in presses	.....	.....	.....	.....	.....	5	8	17	20	.....
Crushed in printing machines	.....	.....	.....	.....	.....	3	4	.....	.....	12
Struck by a falling mould	.....	.....	.....	.....	.....	1	1	.....	.....	.....
Hot metal and other material	.....	.....	.....	.....	.....	.....	3	.....	.....	.....
Injured by knives	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Elevator accidents	.....	1	.....	1	.....	.....	1	.....	3	.....
Explosion of magnesium powder	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Total	.....	1	.....	1	.....	9	19	17	23	12

CLOTHING TRADES.

Injured by elevators and hoists	1	2	2	1	.....	4	6	4	1	1
Kicked by a horse	.....	.....	.....	.....	.....	.....	1	.....	1	.....
Injured by machinery, belting, etc.	.....	1	.....	.....	1	8	21	11	18	13
Injured by mangles	.....	.....	.....	.....	.....	4	1	.....	.....	.....
Injured by presses	.....	.....	.....	.....	.....	2	2	.....	.....	.....
Injured by falling	.....	.....	.....	.....	.....	.....	1	1	1	.....
Injured by falling material	.....	.....	.....	.....	.....	.....	1	2	3	2
Explosion of acetylene gas	.....	.....	.....	.....	.....	.....	1	1	.....	.....
Mistaken use of nitrate of potash	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Unclassified	2	.....	.....	.....	.....	3	.....	.....	.....	.....
Total	3	3	2	1	1	21	36	19	24	16

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

TEXTILE TRADES.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Injured by machinery, belting, etc	2		1	1	1	13	13	41	29	34
Injured by a loom						2	5			
Injured by a picker						1	2			
Injured by a shuttle						1	1			
Injured by a spindle						1	1			
Injured by an elevator			1		1	1	2			
Falling from a building, etc		1				1	1		1	2
Collapse of a building						1	1			
Injured by drawing frame							2			
Run over by train		1								
Ignition of cotton, etc			1	2				1	3	
Falling material								3	8	1
Unclassified	1					2	2			
Total	3	2	3	3	2	23	30	46	41	37

FOOD AND TOBACCO PREPARATION.

Injured by machinery, belting, etc	1		5	3	2	12	23	27	22	23
Falling from vehicles		2		1	1	6	10	2	2	5
Falling from a ladder					1	1	3			
Falling in various ways not specified	3		4			9	6	14	17	6
Injured by bursting bottles	1					2	4			
Run over by cars	1	1			2		2			
Injured by elevators		1	1	3	3	4	6	2	3	9
Scalded by hot water						3	4	10		4
Injured by falling of tree		1					1			
Injured by live stock		1		1			2	2	2	4
Crushed by goods in workshop, etc					2	3	2			2
Injured by a knife or tools			1		3	1	2	7	2	4
Injured by a dough mixer						1	2			
Explosion of gas, etc		2	1	2			9	7	12	3
Drowned			3	1						
Smothered in grain bin			2							
Electric shock				3				1	2	
Dropped dead while fighting fire			1							
Railway accident			1	3						
Falling material			1	1				7	12	3
Unclassified		1				13				
Total	6	9	20	18	14	55	76	79	74	63

LEATHER TRADES.

Injured by machinery, belting, etc	1	4	2		1	1	6	11	2	4
Burned in a fire		2								
Falling			1				1	2	1	
Unclassified	1					3				
Injured by elevator					2					1
Injured by boiling tallow										
Total	2	6	3		3	4	7	13	3	5

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

RAILWAY SERVICE.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Struck by engines, etc.	53	37	27	42	15	35	27	44	16	16
In collisions	33	25	45	37	33	77	43	54	39	51
Derailing of engines, etc.	18	16	12	30	25	24	33	29	18	42
When coupling	12	20	.....	.....	.....	24	35	.....	.....	.....
Falling from trains and cars	22	6	14	17	15	49	31	53	52	47
Falling from train and run over	26	39	.....	.....	.....	3	16	.....	.....	.....
Foot catching in frogs, etc., and run over	5	3	.....	.....	.....	5	6	.....	.....	.....
Run over by trains, etc., in other ways	47	23	62	106	95	23	10	33	44	33
Injured by boiler explosions	3	3	5	2	4	5	12	4	2	13
Injured by blasting, dynamite, etc.	20	.....	43	51	76	12	9	41	49	28
Crushed between cars, engines, etc.	10	20	21	33	16	16	28	30	58	28
Crushed in round-houses and shops	2	.....	.....	.....	.....	5	3	.....	.....	.....
Striking objects when on moving trains and cars	1	4	5	2	6	2	23	3	5	4
Injured by falling snow and rock, etc.	4	.....	6	11	19	.....	3	18	46	33
Injured by electric shock	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Struck by falling freight	1	.....	.....	.....	.....	8	10	.....	.....	.....
Struck by falling metal	.....	6	.....	.....	.....	5	16	.....	1	.....
Falling in other ways	4	2	.....	.....	.....	15	4	.....	.....	.....
Injured by tools	.....	.....	.....	.....	.....	3	3	4	3	.....
Injured by machinery, belting, etc.	.....	1	1	.....	6	.....	9	10	4	16
Injured by an elevator	.....	2	.....	.....	.....	1	.....	.....	.....	.....
Drowned	.....	.....	4	8	9	.....	.....	.....	.....	.....
Asphyxiated by gasolene fire	.....	.....	2	.....	3	.....	.....	.....	.....	.....
Struck by lightning	.....	.....	4	.....	1	.....	.....	.....	.....	1
Lost on prairie, frozen	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Burnt to death	.....	.....	.....	2	1	.....	.....	.....	.....	.....
Sunstroke	.....	.....	.....	1	1	.....	.....	.....	.....	.....
Injured by flying material	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
Blood poisoning	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Unclassified	10	8	.....	.....	.....	30	9	.....	.....	.....
Total	273	215	252	342	326	342	331	323	337	316

NAVIGATION.*

Causes of Accidents.	Killed.				Injured.			
	1905	1906	1907	1908	1905	1906	1907	1908
Drowning	101	92	62	46	.....	.....	.....	.....
Injured by falling material	.....	3	5	3	20	24	19	22
Caught in hawser	.....	.....	.....	.....	1	.....	.....	.....
Falling into hold, etc.	8	9	17	18	20	18	30	23
Explosions of gas, etc.	8	1	1	8	14	5	12	6
Struck by engine	2	3	2	.....	.....	.....	.....	.....
Struck by merchandise	.....	1	.....	.....	5	5	.....	.....
Struck by derricks, cranes, etc.	4	.....	6	.....	14	.....	1	2
Injured by fire on vessel	1	1	5	3	11	.....	4	1
Frozen to death	1	.....	.....	.....	.....	.....	.....	.....
Electric shock	.....	1	1	.....	.....	.....	.....	.....
Injured by machinery	.....	2	1	2	.....	1	6	5
Crushed between wharf and vessel	.....	2	.....	.....	.....	.....	1	.....
Discharge of firearms	.....	.....	.....	.....	.....	1	.....	.....
Struck by passing object	.....	1	.....	.....	.....	.....	.....	1
Exposure	.....	1	.....	.....	.....	6	1	.....
Injured by railways	.....	.....	.....	4	.....	.....	.....	.....
Injured by vehicles	.....	.....	.....	.....	.....	.....	.....	1
Sunstroke	.....	.....	.....	.....	.....	.....	.....	1
Unclassified	3	.....	.....	.....	.....	.....	.....	.....
Total	128	117	100	84	85	61	74	62

* This group of trades was included with general transport in 1904.

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

GENERAL TRANSPORT.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Drowned	33	69	4	9	1				64	
Falling on board ship	6	9				14	22			
Falling from vehicles	50	6	8		3	59	52	20		8
Falling from vehicles and run over	1	6	4	11	7		10	16	11	8
Falling from scaffolding			2			1	2			
Falling from a building	1									
Falling in various ways not specified	2				11	7		56		49
Crushed between a boat and wharf	2	3				4	4			
Injured by elevators and hoists	6	3	1			6	4		6	
Injured by blastings and explosions	3						1		1	
Struck by trains	4	5	5	2	4	3		8	10	1
Run over by trains and cars	3	3	2	2		3	5		9	
Run over by vehicles	1	1				6	2			
Collisions with street cars		3			4	6	24			13
Struck by timber, wood, etc	4		1	2		10	22		3	
Struck by wagon loads	3	1				4	2			
Struck by buckets	3				1	1				2
Injured by machinery, belting, etc	4	3		2		2	13	7	2	
Struck by freight	2		2	3		5	10	7	14	
Struck by falling coal	2					1	1			
Crushed between cars and vehicles	2						1			
Injured by falling earth, etc., in cave-in	3		1	3	8	1	1	6		13
Derailing of a train	1						1			
Injured by live stock	5	3	2	8	5	8	15	20	13	17
Exposure	1	1	1				2			
Crushed between cars and shed, etc	1			3			3		13	
Struck by lightning						1				
Struck by falling metal						3	2	19		
Struck by vehicles						3	2		6	
Scalded						2				
Caught by hawsers and anchor chains						3	1			
Burned in fire on a ship		3	1		1	2	11			4
Struck by a pulley						2				
Struck by falling bricks		1						6		
Collisions			12	5		1		13	13	28
Runaways				4	9				11	16
Electric shock				1					2	1
Unclassified		20				10	20			
Total	103	140	45	55	54	168	234	178	193	135

CIVIC EMPLOYEES. *

	1905	1906	1907	1908	1905	1906	1907	1908
Injured by falls on way to fire, at fires, &c	4	1	2	4	53	43	29	22
Injured by falling material	2		1	6	10	6	27	12
Injured by collision between prison van and street car					3	5	6	
Injured while arresting prisoners				2	5	7	1	4
Injured while lifting a tile	1	1						
Injured in an elevator					1	2		
Struck by engine		2				1	2	2
Asphyxiated by gas		1		3		1		4
Explosion of gas, etc			1	2		1	10	2
Run over by vehicles				1			2	5
Injured by live stock							2	2
Injured by tools							1	
Drowned			1					
Electric shock			1	1				
Machinery								2
Total	7	5	6	19	72	66	80	55

* This group was constituted a distinct unit in 1905.

TABLE SHOWING CAUSES OF ACCIDENTS DURING THE YEARS 1904, 1905, 1906, 1907 AND 1908—Continued

MISCELLANEOUS TRADES.

Causes of Accidents.	Killed.					Injured.				
	1904	1905	1906	1907	1908	1904	1905	1906	1907	1908
Blasting, explosions of dynamite, &c.	7	5	2	11	11	2	18	19	30	18
Other explosions	3	5	2	.....	9	2	9	22	.....	16
Boiler explosions	.....	2	.....	.....	.....	4	9	.....	.....	.....
Injured by machinery, belting, &c.	4	20	7	5	6	26	48	75	48	31
Railway accidents	4	3	6	3	....	8	8	4	2	14
Falling from vehicles	1	.....	2	4	1	4	13	5	9	.....
Falling from buildings	1	2	.....	1	.....	17	5	1	5	.....
Collapse of buildings	3	1	.....	.....	.....	16	1	.....	.....	.....
Falling from scaffolding	.....	1	1	.....	.....	3	.....	1	.....	.....
Falling in various ways not specified	4	7	1	4	10	13	15	56	21	31
Poisonous fumes	3	1	9	1	.....	11	.....	.....	.....	.....
Injured in various ways at fires	.....	.....	.....	1	.....	27	3	.....	11	.....
Struck by falling wood	1	1	.....	.....	1	1	6	.....	.....	.....
Drowned	3	16	7	8	.....	.....	.....	.....	.....	.....
Injured by live stock	2	1	1	2	.....	5	5	5	4	.....
Elevator accidents	.....	4	5	2	1	9	1	4	6	17
Injured by cave-in of earth	.....	.....	3	3	.....	.....	.....	4	.....	.....
Injured by electricity	.....	.....	1	1	2	.....	.....	.....	.....	1
Injured by exposure	.....	.....	.....	.....	2	.....	.....	1	1	1
Suffocated in a fire	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Heart failure	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Discharge of firearms	.....	.....	1	1	1	.....	.....	2	1	1
Burned to death	.....	.....	2	5	2	.....	.....	.....	.....	.....
Struck by falling material	.....	.....	2	9	2	.....	.....	27	30	18
Ruptured artery in struggle with patient	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Runaways	.....	.....	.....	.....	3	.....	.....	.....	.....	6
Smothered in cement	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Asphyxiated by gas	.....	.....	.....	.....	7	.....	.....	.....	.....	.....
Injured by tools	.....	.....	.....	.....	2	.....	.....	.....	.....	1
Unclassified	5	2	1	.....	.....	30	18	.....	.....	.....
Total	41	71	56	62	61	178	159	226	168	156

UNSKILLED LABOUR.

Falling from buildings	4	.....	2	.....	.....	8	7	.....	1	.....
Falling from scaffolding	1	.....	1	.....	.....	6	2	.....	.....	.....
Struck by falling wood	.....	2	4	.....	.....	12	13	15	.....	.....
Falling from vehicles	.....	1	.....	1	8	3	1	25	2	4
Falling in other ways	2	4	5	7	12	7	21	.....	22	12
Struck by falling stones, bricks, etc.	5	7	1	14	11	13	35	50	82	59
Injured by elevators and hoists	.....	1	.....	1	1	1	5	8	4	1
Injured by caving-in of earth	4	5	7	4	7	5	10	3	2	3
Injured by derricks and cranes	1	2	.....	.....	5	9	5	.....	.....	.....
Drowned	1	1	7	.....	.....	.....	3	.....	.....	.....
Blasting, explosions of dynamite, etc.	2	7	1	1	9	15	10	7	5	20
Injured by machinery, belting, etc.	.....	2	.....	1	3	3	12	13	17	13
Struck by falling metal	.....	1	.....	.....	.....	8	2	.....	.....	.....
Collapse of part of building	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
Railway accidents	.....	16	10	4	8	.....	15	5	11	9
Run over by vehicles	.....	.....	.....	1	.....	.....	.....	2	6	.....
Injured by exposure	.....	.....	1	.....	.....	.....	.....	1	.....	.....
Injured by tools	.....	.....	.....	.....	1	.....	.....	5	1	4
Injured by live stock	.....	.....	1	.....	.....	.....	.....	4	1	2
Asphyxiated by gas	.....	.....	.....	.....	3	.....	.....	3	.....	.....
Injured by electric shock	.....	.....	3	.....	2	.....	.....	1	.....	.....
Struck by flying objects	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Smothered in grain bin	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Unclassified	10	6	.....	.....	.....	29	2	.....	.....	.....
Total	30	57	43	34	71	119	143	142	154	130

XIV.—THE LIBRARY OF THE DEPARTMENT.

During the fiscal year there were added to the library of the Department 190 official Reports, 36 works of reference and a large number of pamphlets dealing with industrial questions. There were also received 133 periodicals, of which 102 were trade and labour journals.

Among the more important government publications which were received at the Department may be mentioned various documents relating to Oriental immigration and labour in Australia and South Africa, supplied by the courtesy of the British Colonial Office, a Report on working class rents, housing, retail prices and rates of wages in Germany, Proceedings of the Commission appointed to inquire into the use of opium in the Straits Settlements and the Federated Malay States, Report of the New Zealand Labour Bills Committee on the Industrial Conciliation and Arbitration Bill, and the report of the Commission appointed to enquire into the Poor Laws of Great Britain.

Publications were exchanged, as in previous years, with the labour Departments or similar branches of government of most of the principal countries of the world, but no new country or state was added to the exchange list during the year.

The following periodicals were received for the first time, *Canada, Canadian Courier, Canadian Woodworker, Liberty and Progress, The Manufacturer, Le Prix Courant* and the *Socialist Review.*

Copies of many new trade agreements, which came into force in the Dominion during the fiscal year were furnished to the Department by interested parties. These agreements were printed in the *Labour Gazette* from time to time, and the copies received were placed in the Library.

The Department is indebted to the many persons who supplied numerous pamphlets of great economic interest and importance, either voluntarily or on request, which added largely to the value of the collection of pamphlets in the Library of the Department.

A catalogue of government reports and other publications relating to industrial and labour conditions, and of trade labour and economic periodicals received at the Department during the fiscal year is published herewith.

CATALOGUE OF REPORTS AND OTHER DOCUMENTS ADDED TO THE LIBRARY OF THE DEPARTMENT OF LABOUR DURING THE YEAR ENDED MARCH 31, 1909.

CANADA:

Department of Labour:

	YEAR.
The Labour Gazette, Vol. VIII, Nos. 10 to 12; Vol. IX, Nos. 1 to 9	1908-1909
The Eighth Annual Report	1907-1908
Report of the Royal Commission to enquire into Industrial Disputes in the Cotton Factories of the Province of Quebec	1908

Department of Mines:

Summary Report of the Mines Branch for the fiscal year	1907-1908
The Geology and Mineral Resources of New Brunswick. By R. W. Ells	1907

Department of Agriculture:

Annual Report	1907-1908
Report of the Dairy and Cold Storage Commissions	1907-1908
Canadian Patent Office Record, April, 1907, to March	1908
Census and Statistics. Bulletins Nos. 1 to 9	1908-1909

Department of the Interior:

Annual Report	1907-1908
Maps—Canada's Fertile Northland	1908

Department of Indian Affairs:

Annual Report	1907-1908

Department of Finance:

Report of the Superintendent of Insurance	1907

Department of Inland Revenue:

Report, Returns and Statistics of the Inland Revenues of Canada	1907-1908

Department of Justice:

Report as to Penitentiaries of Canada	1907-1908

Department of Marine and Fisheries:

Annual Report, Fisheries 1907-1908
Report and Recommendations (with Appendices) of the Dominion Fisheries Commission, appointed to enquire into the Fisheries of Georgian Bay and adjacent waters. 1908

Department of Public Works:

Annual Report 1907-1908

Department of Railways and Canals:

Annual Report 1907-1908
Railway Statistics for the Year ended June 30. 1908

Department of Trade and Commerce:

Annual Report 1907-1908

NOVA SCOTIA:

Report of the Department of Mines 1908
Report of the Commission on Old Age Pensions and Miners' Relief Societies 1908

NEW BRUNSWICK:

Department of Agriculture:

Annual Report 1907
Annual Report 1908
Bulletin No. 1. Education for Agriculture. An address delivered by Dr. James W. Robertson. 1908

QUEBEC:

General Report of the Minister of Public Works and Labour. . 1907-1908

ONTARIO:

Department of Labour:

Ninth Annual Report 1908

Department of Agriculture:

Annual Report, Vols. I, II. 1907
Annual Report of the Agricultural Societies of Ontario and of the Convention of the Ontario Association of Fairs and Exhibitions for 1908

Report of the Bureau of Industries for 1907
Annual Report of the Bee-keepers' Association of Ontario for . . 1907
Annual Reports of Dairymen's Associations 1907
Reports of the Farmers' Institutes for 1907
Annual Report of the Ontario Agricultural and Experimental Union 1907
Annual Reports of the Fruit Growers' Association, Fruit Experiment Stations and Entomological Society of Ontario 1907
Annual Reports of the Live Stock Associations. 1908
Third Annual Report of the Poultry Institute of Ontario. 1908
Report on Women's Institutes 1908

Department of Education:

Annual Report 1907
Report of Inspection of the Agricultural Departments in the High Schools 1907

Miscellaneous Reports:

Report of the Bureau of Mines 1907
" " " " 1908
Report on the Care of the Feeble-Minded 1908
Report of the Temiscaming and Northern Ontario Railway Commission for 1908
Report on the Reforestation of Waste Lands in Southern Ontario. 1908

SASKATCHEWAN:

Annual Report of the Department of Public Works. 1907-1908
Annual Report of the Department of Agriculture 1907
Report of Mr. Francis Dagger, with respect to the Development of the Telephone Service 1908

THE UNITED KINGDOM:

Labour Department: Board of Trade.

The Labour Gazette, Vol. 16, April to December, 1908; Vol. 17, January to March 1909
Fifteenth Annual Report on Changes in Wages and Hours of Labour 1907
Report of an Enquiry into Working Class Rents, Housing and Retail Prices, together with Rates of Wages in Certain Occupations in the Principal Industrial Towns of the German Empire 1908
Report to the Board of Trade upon Matters connected with the Establishment and Working of Railway Conciliation Boards, set up in accordance with the Agreement of the 6th November, 1907 1909

Commercial Department: Board of Trade.

The Board of Trade Journal, April, 1908, to March 1909
Statistical Abstract for the United Kingdom in each of the last fifteen years from 1893 to 1907
Statistical Abstract for the British Empire in year from 1883 to 1907
Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions, Vols. I, II. . . 1907

Railway Department: Board of Trade.

Returns of Railway Accidents during three months ending March 31. 1907
Returns of Railway Accidents during the six months ending June 30 1907
Returns of Railway Accidents during the nine months ending September 30. 1907
General Report on Railway Accidents during the year ending December 31 1907
Return of Railway Servants on duty more than twelve hours during October 1908
Report by the Board of Trade respecting their Proceedings under the Railway Regulation Act, 1903, during the year ended 27th July 1908

Other Government Publications:

Return as to the Proceedings of Distress Committees in England and Wales, and of the Central (Unemployed) Body for London during the year ended 31st March. 1908
Report from Standing Committee B. on the Housing, Town Planning, etc., Bill, with the Proceedings of the Committee. . 1908
Forty-Fourth Annual Report on Alkali, etc., Works. 1907
Thirteenth Annual Report of the Proceedings of the Registrars under the Building Societies' Acts 1907
Reports on Friendly Societies, Workmen's Compensation Schemes, Industrial and Provident Societies and Trade Unions 1907
Correspondence relating to Chinese Immigration into the Australasian Colonies, with a Return of Acts passed by the Legislatures of those Colonies and of Canada and British Columbia on the subject. 1888
Papers relating to the Grievances of Her Majesty's Indian Subjects in the South African Republic 1895
Proceedings of a Conference between the Secretary of State for the Colonies and the Premiers of the Self-governing Colonies at the Colonial Office, London 1897
Return showing Restrictions upon British Indian Subjects in British Colonies and Dependencies 1900

Papers relating to the Pacific Island Labourers' Act, 1901, of the Commonwealth of Australia 1902
Correspondence relating to the Pacific Island Labourers' Act, 1901, of the Commonwealth of Australia 1903
Despatch to the Governor-General of Australia relating to the Exclusive Employment of White Labour 1903
Correspondence relating to the Position of British Indians in the Transvaal 1904
Report of a Conference between Representatives of the United Kingdom, the Commonwealth of Australia and New Zealand on the subject of Merchant Shipping Legislation 1907
Correspondence relating to Legislation affecting Asiatics in the Transvaal.. 1907
Further Correspondence relating to Legislation affecting Asiatics in the Transvaal 1908
Report to the President of the Local Government Board on Dock Labour in relation to Poor Law Relief 1908
Report of the Fair Wages' Committee with Appendices.. 1908
Minutes of Evidence taken before the Fair Wages' Committee.. 1908
Minutes of Evidence taken before the Truck Committee, Vol. II. 1908
Report by the Local Government Board for Scotland as to the Proceedings of Distress Committees in Scotland for the year ended 15th May 1908
Reports from His Majesty's Representatives Abroad as to Legislation in Foreign Countries respecting a Weekly Rest Day.. 1909
Proceedings of the Commission appointed to enquire into matters relating to the Use of Opium in the Straits Settlements and the Federated Malay States, Vols. I, II, III.. 1909
Second Report (on Afforestation) of the Royal Commission on Coast Erosion and Afforestation, Vol. II, Part I.. 1909
Minutes of Evidence given before the Committee on Fishery Investigations 1908
Report of the Royal Commission on the Poor Laws, and Relief of Distress 1909

COMMONWEALTH OF AUSTRALIA:

Official Year Book, No. 1.. 1901-1907

NEW SOUTH WALES:

Department of Labour and Industry:

Industrial Arbitration Reports and Records, Vol. VI, Parts 3, 4; Vol. VII, Parts 1, 2.. 1907-1908
Report on the Working of the Factories and Shops Act, etc., during 1907

QUEENSLAND:

Department of Labour:

Report of the Director of Labour and Chief Inspector of Factories and Shops for the year ended 30th June 1908

NEW ZEALAND:

Department of Labour:

Journal of the Department of Labour, April, 1908, to March . . 1909
Awards, Recommendations and Decisions under the Industrial Conciliation and Arbitration Act 1908

Other Reports:

Report of the Labour Bills Committee on the Industrial Conciliation and Arbitration Bill, together with Minutes of Proceedings and Evidence 1908

UNITED STATES:

Federal Department of Commerce and Labour:

First Annual Report of the Secretary of Commerce and Labour. 1903
Second Annual Report of the Secretary of Commerce and Labour. 1904
Third Annual Report of the Secretary of Commerce and Labour. 1905
Fourth Annual Report of the Secretary of Commerce and Labour. 1906
Fifth Annual Report of the Secretary of Commerce and Labour. 1907
Sixth Annual Report of the Secretary of Commerce and Labour. 1908
Twenty-second Annual Report of the Commissioner of Labour . . 1907
Bulletin of the Bureau of Labour, Vol. 13, April to Dec., 1908; Vol. 14, Jan. to March. 1909
Twenty-second Annual Report of the Commissioner of Labour. . . 1907
Annual Report of the Commissioner of Corporations 1908
Monthly Consular Trade Reports, April, 1908, to March. 1909

California:

Thirteenth Biennial Report of the Bureau of Labour Statistics. 1907-1908

Connecticut:

Twenty-third Report of the Bureau of Labour Statistics for the two years ended November 30. 1908
Report of the Proceedings of the Child Labour Conference held at Hartford, December 4, 1908. 1908
Report of the Committee regarding Legislation regulating the Liability of Employers. 1909
Labour Bulletin, March 1908

Idaho:

Fifth Biennial Report of the Bureau of Immigration, Labour and Statistics 1907-1908

Illinois:

First Report on Industrial Accidents in Illinois for the six months months ending December 31 1907

Indiana:

Twelfth Biennial Report of the Department of Statistics . . . 1907-1908
Sixth Biennial Report of the Labour Commission 1907-1908

Iowa:

Thirteenth Report of the Bureau of Labour Statistics for the biennial period 1906-1907

Kansas:

Twenty-third Annual Report of the Bureau of Labour and Industry 1907
Twenty-fourth Annual Report of the Bureau of Labour and Industry 1908

Maine:

Twenty-first Annual Report of the Bureau of Industrial and Labour Statistics 1907

Maryland:

Seventeenth Annual Report of the Bureau of Statistics and Information 1908

Massachusetts:

Labour Bulletin, April, 1908, to March 1909
Thirty-eighth Annual Report of the Bureau of Statistics of Labour 1907
Statistics of Manufactures 1907
First Annual Report on the Comparative Financial Statistics of the Cities and Towns of Massachusetts, covering municipal fiscal years ending between November 30, 1906, and April 1. 1907
Second Annual Report of State Free Employment Offices 1908

Michigan:

Twenty-fifth Annual Report of the Bureau of Labour and Industrial Statistics 1908

Missouri:

Surplus Products 1907

New York:

New York Labour Bulletin (quarterly) June, 1908, to March.. 1909
Twenty-fourth Annual Report of the Bureau of Labour Statistics 1906
Sixth General Report of the Bureau of Labour Statistics 1906
Twenty-first Annual Report of the Bureau of Factory Inspection. 1906
Twentieth Annual Report of the Board of Mediation and Arbitration 1906

Ohio:

Twenty-fourth Annual Report of the Department of Inspection of Factories and Workshops 1907

Rhode Island:

Twenty-first Annual Report of the Bureau of Industrial Statistics 1907

Virginia:

Eleventh Annual Report of the Bureau of Labour and Industrial Statistics 1908

Washington:

Sixth Biennial Report of the Bureau of Labour Statistics and Factory Inspection 1907-1908

Wisconsin:

Thirteenth Biennial Report of the Bureau of Labour and Industrial Statistics.. 1907-1908

AUSTRIA:

Die Arbeitseinstellungen und Aussperrungen in Oesterreich wahrend des Jahres 1907
Soziale Rundschau, 9 Jahrgang, Nos. 4 to 12, 1908; 10 Jahrgang, Nos. 1 to 3.. 1909
Arbeitszeit verlangerunger (uberstunden) in Jehre, 1907, in Fabriksmaszigenbetrieben 1908
Gesetzentwurf, betreffend die Sozial versicherung 1908
Protokol der dreiundzwanzigsten sitzung des Arbeitsbeirates vom 22 Dezember.. 1908

BELGIUM:

Revue du Travail, April, 1908, to March 1909
Rapports Annuels de l'Inspection du Travail.. 1907
Salaires et Durée du Travail dans les Industries des Métaux au 31 octobre 1903, Vols. I, II.. 1907
Construction des Machines et Appareils Electriques.. 1908
Rapport de l'Institut de Droit Comparé 1908
Bulletin du Comité Central du Travail Industriel, avril 1908 à mars 1909

FRANCE:

Bulletin de l'Office du Travail, avril 1908 à mars 1909
Statistique Annuelle des Institutions d'Assistance, année.. .. 1906
Statistique des Grèves et des Recours à la Conciliation et à l'Arbitrage survenus pendant l'année.. 1907
Annales du Musée Social, revues mensuelles, avril 1908 à mars.. 1909
Mémoires et Documents, supplément aux Annales.. 1907

GERMANY:

Die Regelung des Arbeitsverhaltnisses der Gemeindearbeites in deutschen Stadten I Enhebungen uber Arbeitzlohn und Arbeitszeit 1902 und 1907 1908
Reichs-Arbeitsblatt, April, 1908, to March 1909

ITALY:

Bolletino del l'Officio del Lavoro, April, 1908, to March.. 1909
Bolletino del l'Emigrazione, Nos. 4 to 12, 1908; Nos. 1 to 3.. .. 1909
Atti del Consiglio Superiore del Lavoro XI Sessione, Febbraio. 1908
Emigrazione e Colonie, Raccolta di Rapporti dei Rr. Agenti Diplomatici e Consolari, Vol. II, Americe, Parte I, Brasile 1908

SPAIN.

Legislacion del Trabajo, Julio, 1907-Junio 1908
Estedistice de las Instituciones de Aborro Cooperacion y Prevision 1908
Congressos Sociales en 1907
Preparacion de las Bases para un Projecto de ley de Accidentes del Trebejo en la Agricultura.. 1908
Boletin del Instituto de Reformes Sociales, April, 1908, to March 1909

SWITZERLAND.

Bulletin de l'Office International du Travail.. 1907-1908

PART II.—TRADE AND LABOUR JOURNALS.

Advance Advocate, official organ of the International Brotherhood of Maintenance of Way Employees. Vol. XVII, Nos. 4 to 12; Vol. XVIII, Nos. 1 to 3, April, 1908, to March 1909
Amalgamated Sheet Metal Workers' Journal, Vol. XIV, Nos. 4 to 12; Vol. XV, Nos. 1 to 3, April, 1908, to March 1909
American Federationist. Vol. XV, Nos. 4 to 12; Vol. XVI, Nos. 1 to 3, April, 1908, to March 1909
American Industries. Vol. VII, No. 4 to Vol. VIII, No. 3, April, 1908, to March 1909
American Pressman. Vol. XVIII, Nos. 3 to 12; Vol. XIX, Nos. 1, 2, 3, Feb., 1908, to March 1909
Blacksmiths' Journal. Vol. IX., Nos. 4 to 12; Vol. X, Nos. 1 to 3, April, 1908, to March 1909
Boilermakers' and Shipbuilders' Journal. Vol. XX, Nos. 4 to 12; Vol. XXI, Nos. 1 to 3, April, 1908, to March 1909
Bookbinder, International. Vol. IX, Nos. 4 to 12; Vol. X, Nos. 1 to 3, April, 1908, to March 1909
Bookseller and Stationer. Vol. XXIV, Nos. 4 to 12; Vol. XXV, Nos. 1 to 3, April, 1908, to March 1909
Brewery Workers' Journal. April 4, 1908, to March 27 1909
Bricklayer and Mason. Vol. XI, Nos. 4 to 12; Vol. XII, Nos. 1 to 3, April, 1908, to March 1909
Bridgemen's Magazine. Vol. VI, No. 9. to Vol. VII, No. 8, April, 1908, to March 1909
Canada Lumberman. Vol. XXVIII, Nos. 4 to 12; Vol. XXIX, Nos. 1 to 3, April, 1908, to March 1909
Canadian Architect and Builder. Vol. XXI, Nos. 4 to 12; Vol. XXII, Nos. 1 to 3, April, 1908, to March 1909
Canadian Baker and Confectioner. Vol. XX, Nos. 4 to 12; Vol. XXI, Nos. 1 to 3, April, 1908, to March 1909
Canadian Dairyman. Vol. XXVII, No. 1 to Vol. XXVIII, No. 13, January, 1908, to March 1909
Canadian Dry Goods Review. Vol. XVIII, Nos. 4 to 12; Vol. XIX, Nos. 1 to 3, April, 1908, to March 1909
Canadian Electrical News. Vol. XVIII, Nos. 4 to 12; Vol. XIX, Nos. 1 to 3, April, 1908, to March 1909
Canadian Engineer. Vol. XV, Nos. 4 to 12; Vol. XVI, Nos. 1 to 3, April, 1908, to March 1909
Canadian Grocer. Vol. XXIV, No. 4, to Vol. XXV, No. 3, April, 1908, to March 1909
Canadian Journal of Commerce. April, 1908, to March 1909
Canadian Journal of Fabrics. Vol. XXV, Nos. 4 to 12; Vol. XXVI, Nos 1 to 3, April, 1908, to March 1909

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Canadian Life and Resources. Vol. VI, Nos. 4 to 12; Vol. VII, Nos. 1 to 3, April, 1908, to March 1909
Canadian Machinery. April, 1908, to March 1909
Canadian Manufacturer. April, 1908, to March 1909
Canadian Mining Review. Vol. XXVII, Nos. 4 to 12; Vol. XXVIII, Nos. 1 to 3, April, 1908, to March 1909
Canadian Woodworker. January to March 1909
Carpenter, The. Vol. XXVIII, Nos. 4 to 12; Vol. XXIX, Nos. 1 to 3, April, 1908, to March 1909
Carpenters' and Joiners' Monthly Report. April, 1908, to March 1909
Cigar Makers' Official Journal. April, 1908, to March 1909
Coast Seamen's Journal. April, 1908, to March 1909
Commercial Intelligence. April, 1908, to March 1909
Commercial Telegraphers' Journal. Vol. VI, Nos. 4 to 12; Vol. VII, Nos. 1 to 3, April, 1908, to March 1909
Coopers' International Journal. Vol. XVII, Nos. 4 to 12; Vol. XVIII, Nos. 1 to 3, April, 1908, to March 1909
Dun's Review. April, 1908, to March 1909
Electrical Worker. Vol. VIII, No. 6 to Vol. IX, No. 5, April, 1908, to March 1909
Fishing Gazette, April, 1908, to January 1909
Garment Workers' Weekly Bulletin, April, 1908, to March 1909
Granite Cutters' Journal, April, 1908, to March 1909
Hardware and Metal, April, 1908, to March 1909
Horseshoers' Monthly Magazine, Vol. X, Nos. 4 to 12; Vol. XI., Nos. 1 to 3, April, 1908, to March 1909
Industrial Banner, April 1908, to March 1909
Industrial Canada. Vol. VIII., No. 8 to Vol. IX., No. 7, April, 1908, to March 1909
Insurance and Financial Review. Vol. IV., Nos. 4 to 12; Vol. V., Nos. 1 to 3, April, 1908, to March 1909
International Musician. Vol. IV., Nos. 4 to 12; Vol. V., Nos. 1 to 3, April, 1908, to March 1909
International Steam Engineer. Vol. XI., Nos. 4 to 12; Vol. XII., Nos. 1 to 3, April 1908, to March 1909
Iron Moulders' Journal. Vol. XLIV., Nos. 4 to 12; Vol. XLV., Nos. 1 to 3, April, 1908, to March 1909
Journal des Correspondences, Organe Officiel des Syndicats du Parti Ouvrier Belge, April, 1098 ,to March 1909
Journal of the Knights of Labour, April, 1908, to March 1909
Labour Co-partnership. Vol. XIV., Nos. 4 to 12; Vol. XV., Nos. 1 to 3, April, 1908, to March 1909
Labourers' Journal. April, 1908, to March 1909
Lather, The. Vol. VIII., Nos. 4 to 12; Vol. IX., Nos. 1 to 3, April, 1908, to March 1909
Leather Workers on Horse Goods Journal. Vol. X., Nos. 8 to 12; Vol. XI., Nos. 1 to 7, April, 1907, to March 1909

Locomotive Engineers' Journal. Vol. XLII., Nos. 4 to 12; Vol. XLIII., Nos. 1 to 3, April, 1908, to March 1909
Locomotive Firemen and Enginemen's Magazine. April, 1908, to March. 1909
Le Prix Courant. January to March 1909
Machinists' Monthly Journal. Vol. XX., Nos. 4 to 12; Vol. XXI., Nos. 1 to 3, April, 1908, to March 1909
Manufacturer, The. April, 1908, to March 1909
Marine Review. Vol. XXXVII, Nos. 4 to 6; Vol. XXXVIII; Vol. XXXIX, Nos. 1 to 3, April, 1908, to March 1909
Maritime Mining Record. April, 1908, to March 1909
Metal Polishers and Buffers' Journal. Vol. XVII., Nos. 4 to 12; Vol. XVIII., Nos. 1 to 3, April, 1908, to March 1909
Miners' Magazine. April, 1908, to March 1909
Mine Workers' (United) Journal. April, 1908, to March 1909
Mixer and Server. Vol. XVII., Nos. 4 to 12; Vol. XVIII., Nos. 1 to 3, April 1908, to March 1909
Monetary Times and Trade Review. April, 1908, to March 1909
Moniteur des Syndicats Ouvriers. April, 1908, to March 1909
Montreal Municipal Gazette. April, 1908, to March 1909
Motorman and Conductor. Vol. XVI., No. 2, to Vol. XVII., No. 1, April, 1908, to March 1909
National Builder. Vol. XLVI., Nos. 4 to 6; Vol. XLVII., Vol. XLVIII., Nos. 1 to 3, April, 1908, to March 1909
Pacific Lumber Trade Journal. April, 1908, to March 1909
Painters', Decorators' and Paperhangers' Journal. Vol. XXII., Nos. 4 to 12; Vol. XXIII., Nos. 1 to 3, April. 1908, to March 1909
Pattern Makers' Journal. Vol. XVII., Nos. 4 to 12; Vol. XVIII., Nos 1 to 3, April, 1908, to March 1909
Piano and Organ Workers' Journal. Vol. X., Nos. 4 to 12; Vol. XI., Nos. 1 to 3, April, 1908, to March 1909
Plumbers, Gas and Steamfitters' Journal. Vol. XIII., Nos. 4 to 12; Vol. XIV., Nos. 1 to 3, April, 1908, to March 1909
Printer and Publisher. Vol. XVII., Nos. 4 to 12; Vol. XVIII., Nos. 1 to 3, April, 1908, to March 1909
Railroad Employee. Vol. VII., Nos. 4 to 12; Vol. VIII., Nos. 1 to 3, April, 1908, to March 1909
Railroad Freight and Baggageman. Vol VI., No. 8, to Vol. VII., No. 7, April, 1908, to March 1909
Railroad Telegrapher. Vol. XXV., Nos. 4 to 12; Vol. XXVI., Nos. 1 to 3, April, 1908, to March 1909
Railroad Trainmen's Journal. Vol. XXV., Nos. 4 to 12; Vol. XXVI., Nos. 1 to 3, April, 1908, March 1909
Railway Age. April, 1908, to March 1909
Railway Carmen's Journal. Vol. XIII., Nos. 4 to 12; Vol. XIV., Nos. 1 to 3, April, 1908, to March 1909
Railway Clerk. Vol. VII., Nos. 4 to 12; Vol. VIII., Nos. 1 to 3, April, 1908, to March 1909

Railway and Locomotive Engineering. Vol. XXI., Nos. 4 to 12; Vol. XXII., Nos. 1 to 3, April, 1908, to March 1909
Railway and Marine World. April, 1908, to March 1909
Railway Conductor. Vol. XXV., Nos. 4 to 12; Vol. XXVI., Nos. 1 to 3, April, 1908, to March 1909
Retail Clerks' International Advocate. Vol. XV., Nos. 4 to 12; Vol. XVI., Nos. 1 to 3, April, 1908, to March 1909
Review—National Founders' Association. April, 1908, to March 1909
Shoe and Leather Journal. Vol. XXI., Nos. 4 to 12; Vol. XXII., Nos. 1 to 3, April, 1908, to March 1909
Shoe Workers' Journal. Vol. IX., Nos. 4 to 12; Vol. X., Nos. 1 to 3, April, 1908, to March 1909
South African Typographical Journal. March, 1908, to February 1909
Stereotypers' and Electrotypers' Journal. Vol. III., Nos. 4 to 12; Vol. IV., Nos. 1 to 3, April, 1908, to March 1909
Stonecutters' Journal. Vol. XXII., Nos. 4 to 12; Vol. XXIII., Nos. 1 to 3, April, 1908, to March 1909
Stove Mounters' Journal. Vol. XIII., Nos. 4 to 12; Vol. XIV., Nos. 1 to 3, April, 1908, to March 1909
Switchmen's Union Journal. Vol. X., Nos. 6 to 12; Vol. XI., Nos. 1 to 3, April, 1908, to March 1909
Tailor, The. Vol. XVIII., Nos. 9 to 12; Vol. XIX., Nos. 1 to 3, April, 1908, to March 1909
Tobacco Worker, The. Vol. XII., Nos. 4 to 12; Vol. XIII., Nos. 1 to 3, April, 1908, to March 1909
Trades Unionist (Vancouver, B.C.) Vol. III., Nos. 4 to 12; Vol. IV., Nos. 1 to 3, April, 1908, to March 1909
Typographical Journal. Vol. XXXII., Nos. 4 to 6; Vol. XXXIII., Nos. 1 to 6; Vol. XXXIV., Nos. 1 to 3, April, 1908, to March 1909
Voice, The. Vol. XV., April, 1908, to March 1908
Western Clarion. April, 1908, to March 1909
Women's Trade Union Review. April, 1908, to March 1909

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American Economic Association (publications of the), May, 1908, to February 1909
American Journal of Sociology. Vol. XIII., No. 6, to Vol. XIV., No. 5, May, 1908, to March 1909
Among the Deep Sea Fishers. April, 1908, to March 1909
Annals of the American Academy of Political and Social Science, May, 1908, to March 1909
Canada. April, 1907, to March 1908
Canadian Courier. April, 1907, to March 1908
Canadian Forestry Journal. April, 1907. to March 1908
Canadian Municipal Journal. April, 1908, to March 1909

Charities and Commons. April, 1908, to March 1909
Co-operative News. April, 1908, to March 1909
Economic Review. Vol. XVIII., Nos. 2 to 4; Vol. XIX., No. 1, April, 1908, to January 1909
Economist. April, 1908, to March 1909
Factory Inspector, The. April, 1908, to March 1909
Industrial Canada. April, 1908, to March 1909
Journal of Political Economy. Vol. XVI., Nos. 4 to 12; Vol. XVII., Nos. 1 to 3, April, 1908, to March 1909
Labour Co-partnership. April, 1908, to March 1909
Lend-a-Hand Record. April, 1908, to March 1909
Liberty and Progress. April, 1908, to March 1909
Literary Digest. April, 1908, to March 1909
L'Union Co-operative. April, 1908, to March 1909
National Civic Federation Review. April, 1908, to March 1909
Outlook, The. April, 1908, to March 1909
Political Science Quarterly. Vol. XXIII., No. 2, to Vol. XXIV., No. 1, June, 1908, to March 1909
Public Opinion. April, 1908, to March 1909
Quarterly Journal of Economics. Vol. XXII.,. No. 3, to Vol. XXIII., No. 2, May, 1908, to March 1909
Quarterly Review. Nos. 415 to 418, April, 1908, to January 1909
Royal Statistical Society, Journal of. Vol. LXXI., Parts 2 to 4; Vol. LXXIII., Part 1, June, 1908 to March 1909
Social Service. April, 1908, to March 1909
Socialist Review. April, 1908, to March 1909
Toilers of the Deep. April, 1908, to March 1909
Women's Industrial News (Quarterly). June, 1908, to March 1909

XV.—THE CIRCULATION OF THE *LABOUR GAZETTE.*

The *Labour Gazette* is published in both English and French, and involves the keeping of separate mailing lists, and the printing of all notices and the reading of all proofs in both languages. The number of paid subscriptions to the *Gazette* received during the past fiscal year was 7,564, the total paid circulation at the end of the fiscal year being 9,338. The continued increase in the circulation has correspondingly increased the work in the nature of entries, forwarding subscription notices, acknowledging remittances, sending out renewal subscription blanks, preparing and revising mailing lists, changing addresses of subscribers, &c.. &c. In addition to forwarding the *Gazette* to regular subscribers, many sample copies have also been sent out from the Department.

In connection with the circulation of the *Labour Gazette* for the twelve months ending March 31, 1909, 6,306 letters were received and acknowledged, 5,548 of which had reference to subscriptions to the *Labour Gazette,* 446 to a change of address on the part of subscribers, and 312 to other matters connected with the circulation.

For the same period, 28,298 pieces of mail matter were despatched from the circulation branch, representing 24,788 communications containing notices, accounts, or receipts for subscriptions; 960 other communications in connection with the circulation of the *Gazette* and 2,550 parcels.

During the fiscal year 1908-9 the average monthly circulation of the *Labour Gazette* was 13,618 copies, of which 8,832 were on account of paid circulation,* and 4,396 to persons on the free and exchange lists. The increase in the number of paid subscriptions over the preceding year was 305, while the increase in the free and exchange distribution was 152, making a total increase of 457.

The following figures will show the total circulation of the *Gazette* as it was on the last day of each of the fiscal years during the period from 1900 to 1909:—

DEPARTMENT OF LABOUR, CANADA,
STATISTICAL TABLES, IX. A. R. No. 34.

TABLE SHOWING CIRCULATION OF THE LABOUR GAZETTE AT THE CLOSE OF EACH FISCAL YEAR FROM 1900 TO 1909 INCLUSIVE.

Year.	Annual Subscriptions	Free and Exchange Distribution.	Total Circulation.
1900-1	4,391	2,158	6,912
1901-2	5,648	2,722	8,370
1902-3	7,748	3,046	10,794
1903-4	7,361	3,553	10,914
1904-5	6,645	3,717	10,362
1905-6	7,547	3,987	11,534
1906-7	8,033	4,105	12,138
1907-8	9,033	4,320	13,353
1908-9	9,338	4,472	13,810

* The actual number of paid subscribers at the end of the fiscal year, March 31, was 9,338.

The following summary will show by provinces the number of paid subscriptions to the *Labour Gazette* at the end of the fiscal year, March 31, 1909:—

Nova Scotia	1,211
New Brunswick	518
Prince Edward Island	83
Quebec	2,228
Ontario	3,517
Manitoba	362
Saskatchewan	351
Alberta	328
British Columbia	578
The Territories	6
The British Empire (other than Canada)	55
Foreign countries	101
Total	9,338

FREE AND EXCHANGE LISTS.

Under the head of copies of the *Labour Gazette* sent as exchanges are included *Labour Gazettes* sent to public departments of the governments, both federal and provincial, in this and other countries, and to the publishers of trade papers and labour journals in exchange for their publications. On the free list are included copies sent to members of both Houses of Parliament, commercial agents, immigration agents, public libraries, boards of trade, libraries of educational institutions, local newspapers and the officers of organizations who supply from time to time information requested by the department. The following summary will show the number of copies mailed monthly on account of exchange and free lists:—

Exchange List.

Departments of governments (including federal, provincial, British and foreign governments and their officers)	450
Trade papers and labour journals	152

Free List.

Public libraries and libraries of educational institutions	115
Members of the House of Commons	221
Members of the Senate	87
Boards of trade	220
Newspapers	893

Labour organizations—		
Nova Scotia	147	
New Brunswick	84	
Prince Edward Island	9	
Quebec (copies, English and French)	612	
Ontario	827	
Manitoba	104	
Saskatchewan	59	
Alberta	123	
The Territories	8	
British Columbia	220	
		2,193
Correspondents of the *Labour Gazette* (3 copies each)		141
Total		4,472

REVENUE OF THE "LABOUR GAZETTE."

The revenue of the *Labour Gazette* is derived from the sale of single copies and from subscriptions for one or more years. Single copies are supplied at the rate of 3c. each, or 20c. per dozen. The annual subscription rate is 20c., or when more than 12 copies are taken by the same person or institution 15c. Bound volumes of the *Gazette*, including the issues of each year, are sold at the rate of 75c. per copy.

The following statement of receipts from subscriptions, and from the sale of single and bound copies of the *Gazette* during the fiscal year 1908-9 shows that the net revenue derived by the Government from this source amounted to $1,563.82.

Statement of the Revenue of the Department of Labour for the Fiscal Year ended March 31, 1909.

Amount received from subscriptions to *Labour Gazette*		$1,578.80
Sale of single and bound copies		45.97
Amount received up to June 30, 1908, for subscriptions to the *Labour Gazette* which has been held pending the identification of the remitters, and which is now being paid into revenue, as no claims have been presented for same		2.35
		$1,627.12
Less		
Commission on subscriptions	$61.82	
Fees paid for postal notes transmitting amounts due as commission on subscriptions	.63	
Subscriptions refunded	.85	
		63.30
		$1,563.82

XVI.—THE DISTRIBUTION OF THE *LABOUR GAZETTE* AND OTHER PUBLICATIONS.

The *Labour Gazette* is mailed from the offices of the Department of Labour This work necessitates the preparation of a mailing list and its constant revision, also the enclosing and addressing of copies of the *Gazette* each month to names and addresses given on the mailing list. To expedite delivery, the several copies of the *Gazette* are sorted at the Department of Labour and distributed into mail bags, suitably labelled, for their destination in the several localities throughout the Dominion. Not only is time saved in this way, but work of the employees of the city post office is considerably lessened.

In addition to copies of the *Gazette* mailed regularly each month to subscribers, or as exchanges, etc., copies of the *Gazette* are sent out from time to time as samples. Single copies are also mailed from day to day in reply to requests for the same, or in connection with answers sent by the Department to inquiries on subjects which may have been dealt with, either in part or in whole, in the *Labour Gazette*, but a limited number of all copies already issued is kept on file for the same purpose.

During the fiscal year 1908-9, copies of the individual numbers contained in Volumes VIII.-IX. of the *Labour Gazette* to the number of 162,947, were distributed, 137,194 in English and 25,753 in French, also 5,918 copies in English and 776 in French of individual numbers of the *Gazette* of previous years, making a total distribution for the fiscal year of 169,641, or an average monthly distribution of 14,136.

In addition to copies of the *Labour Gazette* distributed there was mailed from the Department 63 copies of bound volumes of the *Labour Gazette;* 6,133 copies of the Annual Report of the Department; 33 copies of the report and evidence of the Royal Commission appointed to investigate the cause of industrial disputes in British Columbia; 31 copies of the report and evidence of the Royal Commission appointed to inquire into alleged employment of aliens by the Grand Trunk Pacific Railway Company; 33 copies of the report and evidence of the Royal Commission appointed to inquire into alleged employment of aliens by the Pere Marquette Railway Company; 75 copies of the report and evidence of the Royal Commission appointed to inquire into the influx of Italian labourers into Montreal and the alleged fraudulent practices of employment agencies; 778 copies of the report of the Royal Commission appointed to inquire into the dispute between the Bell Telephone Company and its operators at Toronto; 588 copies of the report of the Royal Commission appointed to inquire into the methods by which Oriental labourers have been induced to come to Canada; 2,052 copies of a report on methods adopted in carrying out Government clothing contracts; 537 copies of the reports of the special committee of the House of Commons to which was referred "Bill No. 2," an Act respecting Industrial and Co-operative Societies; 4,131 copies of the report on

the need for the suppression of the opium traffic in Canada; 610 copies of the report of the Royal Commission appointed to investigate into the losses sustained by the Chinese population of Vancouver, B.C., on the occasion of the riots in that city in September, 1907; 617 copies of the report of the Royal Commission appointed to investigate into the losses sustained by the Japanese population of Vancouver, B.C., on the occasion of the riots in that city in September, 1907; 261 copies of the report by W. L. Mackenzie King, C.M.G., on mission to England to confer with the British authorities on the subject of immigration to Canada from the Orient and immigration from India in particular; 860 copies of the Royal Commission appointed to inquire into industrial disputes in the cotton factories of the Province of Quebec; 2 copies of article on settlement of coal miners strike at Lethbridge, Alberta, under Conciliation Act, 1900; 56 copies of an Act respecting Conciliation and Labour; 445 copies of the Industrial Disputes Investigation Act, 1907; 284 copies of the statement of proceedings under the Industrial Disputes Investigation Act, 1907, from March 22, 1907, to August 31, 1908; 8,000 copies of indices to Volume VIII. of the *Labour Gazette,* and in addition to the distribution of these several reports, etc., communications in the nature of circular letters having reference to investigations being made by the Department, and miscellaneous publications of one kind and another were mailed to the number of 5,142, making a total in all of 200,332 separate communications or publications mailed by the Department through its distribution branch in addition to the correspondence of other branches of the Department, during the fiscal year ending March 31, 1909.

The following table is arranged to show by months the number and nature of the publications mailed from the distribution branch during the fiscal year 1908-09:—

TABLE SHOWING NUMBER OF "LABOUR GAZETTES" AND OTHER DEPARTMENTAL PUBLICATIONS MAILED FROM THE DISTRIBUTION BRANCH OF THE DEPARTMENT OF LABOUR DURING THE FISCAL YEAR ENDED MARCH 31, 1909.

Name of Publication.	Months.												Total Number of Publications distributed 1908-09.
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	
"Labour Gazettes," Individual copies, Vol. IX,, English.	11,289	11,190	11,300	11,138	11,000	11,900	12,000	11,300	11,332	11,338	11,400	12,007	137,194
" " Miscellaneous, " "	595	523	1,297	276	418	120	525	400	195	609	635	325	5,918
" " Bound Volumes, " "	12	.....	6	2	4	.....	.....	7	.....	2	2	7	42
" " Individual copies, Vol. IX., French.	2,152	2,223	2,201	2,100	2,182	2,300	2,275	2,268	2,189	2,168	2,250	2,445	25,753
" " Miscellaneous, " "	95	98	2	50	182	85	35	78	29	90	97	35	776
" " Bound Volumes, " "	7	.....	.....	1	1	1	.....	.....	8	2	1	.....	21
Annual Reports, 1906-1907 & 1907-1908, English	.....	.....	8	10	20	726	2,316	7	4	309	2,544	55	5,999
" " 1906-1907 & 1907-1908, French	.....	.....	4	.....	.....	.....	6	1	.....	.....	2	.....	13
" " Miscellaneous	50	10	.....	.....	.....	6	.....	.....	.....	15	24	16	121
Report and evidence of Royal Commission on Industrial Disputes in British Columbia	1	.....	3	2	3	2	20	.....	.....	.....	.....	2	33
Report and evidence of Royal Commission on employment of aliens by Grand Trunk Pacific Railway Company	2	.....	2	2	3	2	20	.....	.....	.....	.....	.....	31
Report of Royal Commission on employment of aliens by Père Marquette Railway Company	2	.....	2	2	2	2	20	.....	.....	.....	.....	3	33
Report and evidence of Royal Commission on influx of Italians at Montreal and fraudulent practices of employment agencies	2	.....	2	3	3	3	61	.....	.....	.....	.....	1	75
Report of Royal Commission on Dispute between Bell Telephone Company and its employees, Toronto	20	4	8	20	10	726	.....	.....	2	.....	5	3	778
Report of Royal Commission on methods by which Oriental labour was induced to come to Canada	.....	.....	.....	100	400	25	20	10	7	9	10	7	588
Report on methods adopted in carrying out Government clothing contracts	10	2	4	20	8	4	2,000	.....	.....	.....	4	.....	2,052
Report of Special Committee of the House of Commons on " Bill No. 2 re Co-operatives Societies, English	10	10	.....	.....	20	3	.....	.....	17	6	12	5	83
" " " " " French	.....	.....	400	.....	.....	2	.....	.....	31	12	7	2	454
Report on needs for the suppression of the Opium Traffic in Canada	.....	.....	.....	140	300	25	3,645	.....	7	7	7	.....	4,131
Report on the losses sustained by the Chinese population of Vancouver, B.C., by riots, Sept. 1907	.....	.....	.....	140	300	25	102	11	7	9	9	7	610
Report on the losses sustained by Japanese population of Vancouver, B.C., by riots, Sept. 1907	.....	.....	.....	140	300	25	100	11	10	10	9	12	617
Report of Mission to England re immigration to Canada from the Orient, and India in particular	.....	.....	.....	140	.....	25	52	12	7	9	9	7	261

Report of Royal Commission to inquire into Industrial Disputes in the cotton factories of Prov. of Quebec												860	860
Report of Settlement of coal miners' strike at Lethbridge, Alberta, Under Conciliation Act, 1900												2	2
Report of Settlement of disputes between Western coal operators and employees													
Report of Investigation of alleged fraudulent practices in England to induce printers to come to Canada													
Copies of Conciliation and Labour Act, 1906				50						6			56
" Industrial Disputes Investigation Act, 1907	100	20	10	200	80				18	37	10	70	445
" Statement of proceedings under Industrial Disputes Investigation Act, 1907				200		30		2	31	15	6		284
Miscellaneous publications, letters, etc	360	200	157		1,200	100	32	596	102	248	2,005	136	5,142
Indices to Vol. VIII of the Labour Gazette												8,000	8,000
Total publications, etc., mailed and distributed from the Distribution Branch during the fiscal year 1908-09													200,332
" " " " " " " " " " 1907-08													196,456
Increase, 1908-09													5,332

XVII.—ENQUIRIES, CORRESPONDENCE, AND OTHER DEPARTMENTAL WORK.

Reference has been made elsewhere in the present report to the very large number of requests received during the year from various parts of Canada, and from the United States and elsewhere, for information in regard to the Industrial Disputes Investigation Act and proceedings thereunder. In that portion of the report relating to the work of the Fair Wages branch also mention has been made of some of the extensive correspondence which has taken place on this branch of the work of the Department. In addition inquiries are being constantly received relating to subjects associated more or less closely with departmental work, or to questions with which it is presumed by correspondents that the Department is in touch.

There has been during recent years a remarkable increase of interest on the part of the general public in nearly every aspect of the social and economic problems of the day, and the public appear to turn naturally for information on many points and even occasionally for guidance to the Department which comes in a measure into direct contact with a number of these problems. The possession of a library well equipped with standard writings in sociology and kindred matters and in which has been collected reports on these subjects of the different departments of the governments of leading countries of the world, has fortunately enabled the Department of Labour, as a rule, to furnish its correspondents with the information desired, though this has frequently entailed a considerable amount of clerical labour. It should be added that the classification and arrangement of the mass of reports and documents received from day to day in considerable volume, the necessary attention to the library, the codifying of information received in the Department on many subjects, and the filing of an extensive correspondence, are all matters constantly growing in importance and in the demands made on the clerical resources of the Department. It is believed to be, however, in accordance with the spirit in which the Department had its origin and with the objects it aims at accomplishing, that no reasonable effort should be spared to serve the public well in these important respects; and this view is held yet more emphatically when, as frequently happens to be the case, the inquiries received come from important public bodies, domestic and foreign, or from the representatives of other governments.

Some of the more important subjects concerning which inquiries were received are the following, namely: wages and hours of labour in Canada; the social and economic condition of the working classes; the organization of labour and the names and addresses of Canadian labour unions; the condition of the labour market in respect of various lines of industries, including farming, railway construction, etc., and the opportunities for employment therein; technical education and manual training; the housing and health of the working classes; the cost of living in Canada; Sunday labour; Chinese and Japanese labour;

co-operation as a factor in industrial operations; the operations of employment agencies; employers' liability and workmen's compensation for industrial accidents; factory inspection and the inspection of mines; the employment of female and child labour.

There has been throughout the year a continuous and increasing demand for copies of the Annual Report of the Department, showing in a still more striking manner the manifest interest on the part of the public in the work of the Department. It is only fair to add in this connection that the demand for copies of the report was in a considerable number of cases due to the large amount of information contained in the report with respect to the operation of the Industrial Disputes Investigation Act. Very many requests were also received during the year for copies of earlier reports, and of all the various reports issued from time to time as the result of special investigations conducted by the Department. During the year several thousand copies of special reports printed for distribution by the Department were mailed to specially selected lists of persons in various parts of the Dominion and in many other cases in response to special requests. In a similar way copies of particular issues of the *Labour Gazette* are forwarded in response to requests for the same, or as the readiest means of furnishing information requested on some subject dealt with in the pages of the *Labour Gazette*.

Following are some examples of the class of inquiries received and of the information furnished by the Department:—

At the request of the Director of the International Labour Office, Basle, Switzerland, this Department obtained from the various Provinces of Canada particulars with regard to their systems of factory inspection and inspection of mines, the same to be embodied in a publication of the International Labour Office on the administration of labour laws in various countries.

The Chief of the Bureau of Statistics of the State of New Jersey, in asking for a copy of the Employers' Liability Act of Ontario, stated that it was wanted "as a guide in drawing up an Act of a similar character to be introduced at the present session of the New Jersey Legislature." Other inquiries on the same subject were received from individual companies, firms, and workmen, and related to claims for injuries sustained in various classes of industry.

A letter was received from the *Financial Post* of Canada asking if the Department was able to throw any light on the approximate number of unemployed in Canada during the past winter.

The Chief of the Bureau of Statistics of Massachusetts was furnished with forms of schedules used for the collection of statistics relative to industrial accidents.

In a letter from Strassburg, Sask., the Department was asked for a return of statistics of the relative cost of the necessaries of life in the various parts of Canada, and also to what extent these prices were affected by railway rates.

The Pastor of St. Matthew's Presbyterian Church, St. John, N.B., was furnished with information relative to labour and labour conditions in Canada.

The Secretary of the Industrial Committee of the Montreal's Women's Club wrote requesting literature relating to industrial and labour conditions in

Canada, and especially as to conditions under which women worked in this country.

A correspondent in Peoria, Ill., writing the Department for information on the subject of "Technical Education in Canada," stated that this information was desired for inclusion in a bibliography on this subject.

A professor of Commercial Geography and lecturer in the University of Pennsylvania was furnished with maps and industrial information concerning Canada.

A New York company engaged in the manufacture of silk ribbons wrote to the Department stating that it was inclined to start a similar industry in Canada and would be glad of information as to the prospects of obtaining proper skilled help and other necessary conditions for the operations of such a plant.

The Editor of "Charities and the Commons," New York, N.Y., was furnished with detailed information relating to the housing and health and other conditions affecting labour in Canada.

A correspondent in Winnipeg, Man., was furnished with information regarding the social and economic conditions of the working classes in Canada for use in an article to be published in a Hungarian paper.

The General Secretary of the Lord's Day Alliance in Canada was furnished with the addresses of labour unions throughout Canada.

A letter received from the First Vice-President of the Casualty Company of America, of New York, contained a request for information in regard to an inquiry into child labour.

The late Dr. Theodore Barth, of Berlin, Germany, was one of many others furnished with information relative to the recent industrial development of Canada.

THE ALIEN LABOUR ACT.

A further subject fruitful in inquiry and involving frequent correspondence on the part of the Department, is the Alien Labour Act. As originally enacted in 1897, and amended in 1898, the Alien Labour Act required that no proceedings should be instituted thereunder without the consent of the Attorney-General of Canada or some person duly authorized by him, but complaint was made that this method of procedure made it difficult for persons who believed themselves to have suffered through violations of the Act to secure immediate redress, and the statute was accordingly further amended so that parties desirous of bringing suit might proceed in the local courts without reference to the federal authorities. The Act was also amended in such other respects as experience had shown desirable, and appears in the Revised Statutes of Canada 1906 as Chapter 97, Vol. II, page 1753, "an Act Respecting the Importation and Employment of Aliens."

CONCLUDING REMARKS.

In closing this report I desire to express my appreciation of the manner in which the various officers of the Department have discharged during the year the work allotted to them. The year has been, in some respects, the most eventful in the history of the Department, owing to the announcement of the Prime Minister that it had been decided that the Department should be elevated to the rank of a separate portfolio, a change definitely foreshadowed at the close of the year, and actually accomplished, as has been shown in the introductory chapter to this report, early in the present financial year. The change in the Deputy Ministership also marks the year as an exceptional one.

The continued expansion of work during the year has been illustrated in the discussion of the different branches of the Department, and it has been shown that the work is not only appreciated by the public, but is to a large extent the outcome of a very definite demand on the part of the citizens of this and other countries. That this growth of work will continue under the new conditions there can be no doubt, but in order that the same may be accomplished with due thoroughness and regard to the public interests it may become necessary at an early date that the Department shall be housed in more commodious premises and that its facilities for the performance of statistical research and other clerical work shall be further extended. It would not seem that in any other way the Department would be rendered equal to the increasing demands upon its resources.

I have the honour to be,

Sir,

Your obedient servant,

F. A. ACLAND,

Deputy Minister of Labour.

APPENDIX TO ANNUAL REPORT

OF THE

DEPARTMENT OF LABOUR

FOR

THE FINANCIAL YEAR ENDING MARCH 31, 1909

BEING

A STATEMENT OF THE PROCEEDINGS FOR THE YEAR UNDER THE INDUSTRIAL DISPUTES INVESTIGATION ACT 1907

I.—APPLICATION FROM EMPLOYEES OF THE HAMILTON STREET RAILWAY COMPANY, OF HAMILTON, ONT.—BOARD ESTABLISHED—NO CESSATION OF WORK.

Application received—January 25, 1908.
Parties concerned—Hamilton Street Railway Company, the Hamilton and Dundas Railway Company and the Hamilton and Burlington Railway Company and their employees.
Applicants—Employees.
Nature of industry concerned—Electric Railways.
Nature of dispute—Relations of Union to employing Companies.
Number of employees affected—Directly 120, indirectly 75.
Date of constitution of Board—February 17, 1908.
Membership of Board—His Honour Judge Monck, County Judge of Wentworth County, Chairman, appointed on the joint recommendation of the other members of the Board; Mr. William Bell, K.C., Hamilton, recommended by employers; Mr. J. G. O'Donoghue, Toronto, recommended by employees.
Report received—April 8, 1908.
Result of inquiry—Strike averted.

In the application of John Theaker and George Armstrong, of Hamilton, for the appointment of this Board it was alleged that the employing Companies had indulged in coercion and discrimination to prevail upon employees to abandon their membership in the Amalgamated Association of Street and Electric Railway Employees of America, and that members had been discharged from the Companies' service primarily because of their membership in the Union. In this connection attention was particularly called to the alleged dismissal of Conductor John Theaker, who was at the time President of Division 107 of the Amalgamated Association of Street and Electric Railway Employees of America. The applicants denied that Mr. Theaker was guilty of charges preferred against him and asserted their confidence that the finding of an arbitration or investigation would direct the Companies in question "to withdraw their discrimination against the Union and observe the agreements in full respect as to letter, sense and intent."

In a statement in reply to the application the employing Companies submitted that the dispute was not one falling within the scope of the Industrial Disputes Investigation Act, and that in any case the charges of discrimination, breach of agreement, unfair dismissal, &c., were untrue. The decision of the Minister, however, was that the difference was of a nature which brought it within the purview of the Act, and the Board was accordingly established.

The Board sat several days during March and heard evidence on the subject of investigation, Mr. Reeves, an international officer of the Union,

taking part in the proceedings. As a result of the enquiry, a report was prepared and forwarded to the Department, signed by the chairman and Mr. Bell. Mr. O'Donoghue submitted a minority report, which was also forwarded to the Department. The report of the Board sustained generally the contentions of the employing companies, and found that the charge of discrimination grew out of difficulties among the men themselves, as between union men and non-union men, concerning which the Companies had preserved a strict neutrality. The dismissal of Mr. John Theaker was justified. The report condemned the attitude of the international officer of the union, Mr. Reeves, towards the officers of the employing Companies, and submitted that " better results would be obtained by employees in industrial disputes if the foreign element were eliminated from them." The report condemned the character of certain articles discussing this dispute contained in a monthly journal entitled " The Industrial Banner," of London, Ont., and recommended that " if the officers of the Union desire amity between the Companies and themselves, they should discontinue the subscriptions to this paper until the publication of these articles cease."

Mr. O'Donoghue, in the minority report submitted, agreed with the other members of the Board, in so far that he found in the evidence no justification for the charges of discrimination on the part of the employing Companies against those of their employees who were members of the Union. Mr. O'Donoghue accepted as voicing the settled policy of the Company, the declaration on this subject of Col. the Hon. J. M. Gibson, president of the Company, " that there is no objection to employees belonging to a Union." He agreed also that the schedule arranged under the existing agreement had apparently worked out in favour of the older employees, and that as a consequence there was considerable friction between the older and younger men, to which, no doubt, many of the complaints were due. As to the dismissal of John Theaker, however, Mr. O'Donoghue held that Theaker was unjustly discharged, that the grounds alleged by the Company for the discharge were not sustained by the evidence, and that " no other conclusion is possible than that he (Theaker) was made the victim of Mr. (Supt.) Miller's dislike, a dislike engendered by reason of Theaker's participation in the strike when he was president of the Union." That being the case, he should be reinstated. With regard to the comments contained in the report of the Board concerning " The Industrial Banner" publication, and the international officer of the Union, Mr. O'Donoghue pointed out, as to " The Industrial Banner," that the Union as a whole subscribed for the paper, and that the members by reason of their membership were entitled to receive copies. He did not think the complaint well founded " because the Union cannot be expected to know what articles will appear from time to time in any newspaper, and subscription for the Hamilton daily papers might just as well be objected to." As to the attitude of the international officer, Mr. O'Donoghue submitted that " Mr. Reeves conducted the case of the men with marked ability, and was of much assistance in ventilating the whole case before the Board."

Although the Board was not able to reach a unanimous conclusion on the matters investigated, there is every reason to believe that the information

brought out during the enquiry showing the real reason for much of the existing friction, tended to improve greatly the situation as between the disputing parties and to prepare the way for a better understanding between the employing Companies and the men. Consequently, no interruption of work occurred by reason of the dispute.

REPORT OF THE BOARD.

The text of the report presented by the Board is as follows:

In the matter of the Industrial Disputes Investigation Act, 1907, and of a dispute between The Hamilton Street Railway Company, and The Hamilton and Dundas Railway Company, and the Hamilton and Burlington Radial Railway Company, Employers, and motormen, conductors, shopmen, linemen, machinists and blacksmiths, etc., employees of the said Companies, members of Division No. 107, Amalgamated Association of Street and Electric Railway Employees of America, of Hamilton, Ont., Employees.

The Board of Conciliation appointed to consider the above matters begs to report as follows:—

During the first sitting, the representatives of the Press were excluded in the hope that by free exchange of ideas and friendly intercourse, the parties to the enquiry might effect a compromise. At the end of the first day it became apparent that no such compromise was probable, and the enquiry was made open to the press and public.

The charges or complaints made by the Union in their application for the appointment of this Board are:—

(1) The dismissal of Conductor John Theaker, President of the Union, without cause;

(2) Coercion tending to disrupt the Union; discrimination against members of the Union; favoritism to non-unionists.

(3) Ignoring complaints made by the Union committee in cases of alleged grievances and discourteous treatment of committees;

(4) Fostering and encouraging an organization rival to the Union, and

(5) General breaches of the existing agreement which was the result of the award of the Ontario Railway Board.

It was shown in evidence that since the making of the existing agreement between the parties, Theaker, who was employed by the Hamilton Street Railway Company as a conductor, had been a party to several minor breaches of the company's rules, any one of which, according to the rules of the company, might justify his dismissal; but the company did not dismiss Theaker for any of such breaches.

It was also shown by conclusive evidence that while acting as conductor of one of the company's cars, he had several times carried a passenger free of charge. In fact, after his dismissal, he admitted the truth of this charge to several of the officers of the employing company.

It was also shown that while acting as such conductor, he several times accepted as fare limited tickets, at times when these tickets were not current as fare.

For these latter breaches of duty he was dismissed, and it is the opinion of your Board that his dismissal was justified.

Although no evidence was given by the employees which might substantiate any of the charges, except that respecting Theaker's dismissal, the employing companies by very strong, clear and frank evidence negatived them all.

The evidence shows that at the time of the Arbitration before the Ontario Railway Board, dissatisfaction arose between the older and the younger employees of the companies. The younger members charged and still maintain that the older employees, amongst whom Theaker was, obtained a settlement under which the present schedule of wages came into force, without consulting the younger employees, and that the said schedule is unfair to the latter class as against the former. This led to the withdrawal from the Union of a very large proportion of its members, and to constant and continued disputes, and aroused bitter feeling amongst the men themselves.

Instead of realizing the situation, the older employees blamed the companies for these troubles—and hence arose the charges of discrimination, of inducing members of the Union to withdraw, and kindred charges.

Your Board believe that after hearing the evidence, the complainants are satisfied that this is the seat of the troubles complained of, that all these troubles were domestic, and that the companies maintained a strict neutrality between the warring factions of their employees, treating all fairly and alike; and this is the finding of your Board.

The case of the employees was conducted before your Board by a gentleman named Reeves, from the United States of America, who is an international officer of unions.

The attitude of this gentleman toward the officers of the employing companies was such that even had the latter been inclined to make a compromise, they could not well have done so with proper self-respect and due regard to the discipline of their employees, and it is submitted that better results would be obtained by employees in industrial disputes, and there would be fewer of such disputes if the foreign element were eliminated from them.

Your Board beg further to report that eight almost consecutive numbers of a newspaper called "The Industrial Banner," issued monthly at London, Ont., were put in evidence, and each number contains one or more articles of a scurrilous nature, reflecting on the companies concerned in this enquiry and its officers, especially on D. M. Miller, the Superintendent of the Hamilton Street Railway Company.

The evidence shows that the statements made in these articles are unfair and untrue, and serve only as an irritant between the union and the companies. This paper is subscribed for by the union and distributed to its members gratis.

Your Board recommends that if the officers of the union desire amity between the companies and themselves, they should discontinue the subscription to this paper until the publication of these articles cease.

The Board is of the opinion that neither Manager Green nor Superintendent Miller, nor any other officer of the employing Companies has shown any enmity towards the Union or those belonging to it.

All of which is respectfully submitted.

(Sgd) J. F. MONCK,
Chairman.

WM. BELL.

Dated at Hamilton, the 6th day of April, 1908.

THE MINORITY REPORT.

The text of the minority report submitted by Mr. O'Donoghue is as follows:

In the matter of the Industrial Disputes Investigation Act, 1907, and of a dispute between The Hamilton Street Railway Company, Hamilton and Dundas Railway Company, and the Hamilton and Burlington Radial Railway Company, Employers, and motormen, conductors, shopmen, linemen, machinists and blacksmiths, etc., employees of the said companies, members of Division No. 107, Amalgamated Association of Street and Electric Railway Employees of America, of Hamilton, Ont., Employees.

I regret that I cannot agree with the other members of the Board in the conclusions to be arrived at in this investigation.

The main complaints advanced before the Board by the employees against the Company were:—

1. That employees were discharged by the company on account of their membership in the Association; that membership in the Association was discouraged and disapproved of by the company.
2. That Grievance Committees were refused hearings or were discourteously received.
3. That the influence of the men's committees and representatives was sought to be weakened among the men by reports circulated by the company's officials.
4. That the company did not honourably carry out the award of the Ontario Railway Commission and the agreement based thereon by refusing to restore five employees to their old positions on the Radial Railway.
5. That the company was responsible for a petition that was circulated among the employees requesting the restoration of the old schedule, and that men were threatened with dismissal if they refused to sign the petition—that if the company did not actively encourage the circulation of the petition, it at least tolerated it, and that this was a violation of the agreement that followed the Award of the Railway Commission.
6. That members of the Union were discriminated against on account of their membership in the Association.
7. That John Theaker, President of the Association, was discharged on account of his connection with the organization.

I do not find justification in any evidence given before the Board for Nos. 1, 2, 3, 4, 5 and 6.

With general reference to the allegations of discrimination, I accept Col. Gibson's declaration, that there is no objection to employees belonging to a union, as voicing the settled policy of the company.

The petition was evidently the work of certain of the employees, acting entirely on their own initiative.

The schedule arranged with the company apparently worked out in favor of the older employees. Since the arrangement, many young men have become employees of the road, and they apparently are not satisfied with the schedule. As a consequence, there is considerable friction between the two bodies of men, and many of the complaints have no doubt arisen from this difference.

In John Theaker's case, my opinion is that Mr. Miller was seeking for an opportunity to get rid of him, and that he was unjustly discharged. Mr. Miller swore that he had lost confidence in Theaker before the late strike, and he based that statement upon two grounds, namely, (1) That Theaker, as President of the Union, had allowed the use of liquor at or after meetings of the Union, and that as a result employees were rendered less fit for their duties; and (2) That Theaker had knowledge of the use of "diggers" by employees of the company and had not reported this to the company.

As to ground number 1 the Board unanimously declared that there was no foundation for the charge. On the second charge, my opinion is that Theaker acted as any honorable man would act who would hesitate to play the spy. He consulted his committee, and upon their advice delayed for the time being, in making known to the company what was going on, but he swore that subsequently, when affairs were not complicated by the strike, he gave all the information he had to Mr. Green, an official of the company, Mr. Green admitted this.

With his two grounds for losing confidence in Theaker gone, there must have been some other reason actuating Miller. What that reason was appears from the testimony of one Tollson, who swore that Miller told him he "had it in" for Theaker for the latter's part in the strike, and would get rid of him. Tollson was never a member of the Union, and his testimony cannot therefore be suspected of being biased towards Theaker.

It appears from the evidence that Theaker was in the service of the company for 17 or 18 years, and that he was an exemplary employee, at least down to the time of the strike. After the strike things changed, it was alleged, and he became careless about his duties and, in one short year, Mr. Miller discovered that the company would be better off without him, and he was discharged. The grounds advanced for this summary treatment of an old and faithful employee were:—

1. That, contrary to the rules of the company, he "visited" the motormen. It appeared he was warned about this in August, 1907, and had not offended since.
2. That he reported late on one occasion.
3. That he failed on one occasion to wear his badge.
4. That glass was broken in his car; also a trolley pole and a semaphore.
5. That he accepted limited tickets after hours on two occasions.
6. That he carried a lady free on one occasion.
7. That he carried wives of employees free.

Mr. Miller admitted that numbers 1, 2, 3 and 4 amounted to nothing, and that the real charges were numbers 5, 6 and 7.

As to accepting limited tickets after hours, Waller swore that on two occasions he had seen Theaker accept limited tickets about seven minutes after the time allowed. On one of these occasions Theaker is alleged to have sold to a lady a strip of limited tickets, but Waller could not say whether or not Theaker had received two of them from the lady, which would have been in accordance with the rules or practice of the company. But he did swear that Theaker had refused to accept a limited ticket from a man in the same seat. The second occasion was the acceptance of a limited ticket from one passenger, and he was positive Theaker had collected only one ticket from the passenger. Theaker swore that he had no recollection of either occasion and that he did not knowingly ever take a limited ticket after hours.

In view of Theaker's long and honourable service with the company, and the excellent reputation for truthfulness given him by the Mayor, Rev. Mr. Williamson, and a number of aldermen who appeared before the Board on Theaker's behalf, I accept Theaker's testimony as against Waller's. The passenger in each case, assuming that Theaker did collect a limited ticket on each occasion, may have boarded the car before the time limit had expired, and thus be entitled to tender a limited ticket when the actual collection of fares was made after the time limit.

Then as to charge No. 6—carrying a lady free. A young boy and his sister swore to seeing Theaker pass the lady without taking her fare and then ring up the fare. The lady herself swore that Theaker did not collect her fare. Theaker admits not collecting her fare, but swore that he paid it himself, as he knew she was in hard circumstances. This evidence is supported by the evidence of the lady's husband, who admitted that he was in receipt of assistance from the Union, through Theaker.

There does not appear to be much difference of opinion about charge number 7—carrying employees' wives free. Theaker explained that his admission to the company's officials was that before the strike, it was a common practice to carry the wives of employees free, and that he did so at times, but only when no other passengers were on board, but that since the strike nothing of the kind had occurred. There was no evidence to the contrary.

So that, on the evidence, the grounds alleged for Theaker's discharge are not substantiated, and no other conclusion was possible than that he was made the victim of Miller's dislike, a dislike engendered by reason of Theaker's participation in the strike, when he was President of the Union. That being the case, he should be reinstated. Even assuming the charges well founded, Theaker's long service with the company should have counted for something, and would, with any employer possessed of a fair sense of justice, have meant his retention. I do not blame President Gibson for what happened, as he cannot be expected to be in touch with all the small details of operation. In fact, he expressed a keen regret at the occurrence, and taking his information from the man who had determined to "get rid" of Theaker, it is not to be wondered at that he was misled.

Copies of "The Industrial Banner," a labour paper published in London, Ont., were placed before the Board by the company, and our attention directed to articles reflecting upon the company and upon Mr. Miller. It was contended that the union should have discontinued its subscription to the paper. It appeared that the union as a whole, subscribed for the paper, and the members by reason of their membership are entitled to receive copies, I do not think the complaints well founded, because the union cannot be expected to know what articles will appear from time to time in any newspaper, and subscription for the Hamilton daily papers might just as well be objected to.

An endeavour was made to discredit Mr. Reeves, an officer of the International Association, who appeared before the Board to present the case of the men. Col. Gibson blamed Mr. Reeves for a great deal of the trouble, but on being examined, had to admit that he had no evidence whatever to justify the allegation. Mr. Reeves conducted the case of the men with marked ability, and was of much assistance in ventilating the whole case before the Board.

(Signed) JOHN G. O'DONOGHUE.

Dated at Toronto, April 1st, 1908.

II.—APPLICATION FROM EMPLOYEES OF THE DOMINION MARINE ASSOCIATION — BOARD ESTABLISHED — AGREEMENT CONCLUDED.

Application received—March 6, 1908.
Parties concerned—Dominion Marine Association and Great Lakes seamen.
Applicants—Great Lakes seamen.
Nature of industry concerned—Shipping.
Nature of dispute—Wages and conditions of employment.
Number of employees affected—450.
Date of constitution of Board—April 1, 1908.
Membership of Board—Professor Adam Shortt, Kingston, Ont., Chairman, appointed on the joint recommendation of the other members of the Board; Mr. James Stewart, of Kingston, Ont., appointed by the Minister in the absence of any recommendation from the Dominion Marine Association; Mr. John A. Flett, of Hamilton, Ont., appointed on the recommendation of the employees.
Report received—April 14, 1908.
Result of inquiry—Strike averted.

In the application for the establishment of this Board it was alleged that the wages paid to Canadian seamen on the Great Lakes were very low, running from $20 per month to $40 per month, some of the boats paying, however, a little better than $40 in the fall; that the working hours were very long, men in some cases being on deck from 12 to 18 hours at a stretch. It was also asserted that the Union had been negotiating with the Canadian Lake Carriers through the Dominion Marine Association off and on for a year, but that all their propositions had been rejected.

In its reply to the application, the Dominion Marine Association held that the Association was not an employer within the meaning of the Act, and that its Executive Committee had, on February 12, by resolution declared that the question of an agreement with the seamen was one to be left with individual vessel owners. The Minister held that the Dominion Marine Association was to be regarded as an employer for the purposes of the Act, and proceeded with the establishment of a Board.

As the report printed below will show, most of the matters referred for investigation were dealt with informally before the Board. It was not found possible to embody the outcome in a written agreement, but the discussions that took place before the Board between representatives of employers and men respectively, were useful in clearing up many misconceptions, both as to the working of the Act and in disposing of a number of special grievances and causes of friction which had grown up between the two parties. Both parties

expressed themselves as well satisfied with the outcome, which may be regarded as an especially fortunate result in view of the original determination of the Dominion Marine Association that it would take no part in the proceedings.

LETTER FROM MEN'S REPRESENTATIVE.

The following letter from Mr. Thomas H. Fleming, of Kingston, business agent of the Lake Seamen's Union, to the chairman of the Board, shows the view of the men with regard to the proceedings before the Board.

Kingston, Ont., April 9th, 1908.

PROFESSOR ADAM SHORTT,
Queen's University, Kingston, Ont.

Dear Sir:

We desire to extend to you, on behalf of myself and colleagues, our sincere thanks for the courteous manner in which we were treated by you while chairman of the Board of Conciliation and Investigation. Although somewhat disappointed by the Act, as some of its workings were not just what we had anticipated, we nevertheless understand the good work you have done in bringing the employer and employee together to talk the matter over, which will no doubt lead to good results in the future. We also desire to thank you for the able manner in which you conducted the investigation.

I remain, yours sincerely,

(Signed) THOS. H. FLEMING,
Business Agent, Lake Seamen's Union.

TEXT OF BOARD'S REPORT.

The text of the report forwarded by the chairman of the Board is as follows:—

April 13, 1908.

HONOURABLE RODOLPHE LEMIEUX,
Minister of Labour, Ottawa, Ont.

Dear Sir:

I have the honour to make the following report with reference to the settlement of the dispute between the Lake Seamen's Union and the Dominion Marine Association:

The Board of Conciliation appointed to deal with this case consisted of Mr. James Stewart, of Kingston, appointed by the Department of Labour to represent the Dominion Marine Association; Mr. John A. Flett, of Hamilton, nominated by the Lake Seaman's Union, and Prof. Adam Shortt, of Kingston, nominated by these members as third member and chairman of the Board.

It is unnecessary to refer in detail to the correspondence between the Department of Labour and the representatives of the Dominion Marine Association, and the Lake Seamen's Union, previous to the constitution of the Board. Suffice it to say, that the Dominion Marine Association, having taken the ground that it was not an employer of labour, and hence did not consider itself as coming within the terms of the Act, declined to appoint a

representative on the Board of Conciliation, or to take any part in the proceedings before the Board. On the appointment of the Board, therefore, under the conditions above stated, it was considered advisable, before entering upon the regular sittings, that the members of the Dominion Marine Association should be interviewed with the object of clearing up certain misapprehensions as to the workings of the Industrial Disputes' Investigation Act, and with a view to securing their voluntary attendance before the Board to discuss the points at issue. The outcome of this course was entirely satisfactory, and all the leading shipping companies and vessel owners on the lakes were represented before the Board when it convened on April 7th. The following were present representing the vessel owners: A. E. Wright, President Dominion Marine Association, and representing the St. Lawrence and Chicago Navigation Co.; James Cuttle, Managing Director of the Montreal Transportation Company; H. A. Calvin, President of the Calvin Co.; H. H. Gildersleeve, Manager Northern Navigation Co.; Captain Foote, Canadian Lake and Ocean Navigation Co., and Canadian Lake Transportation Co.; Captain Featherstonhaugh, Midland Navigation Co.; J. T. Matthews, the Matthews Steamship Co., and Captain Horsey, of the Bay of Quinte Navigation Co. The Seamen's Union was represented by Mr. Thos. H. Fleming, business agent, Kingston, assisted by John Guild, Kingston, Harry Carey and Roderick Leonard, Goderich.

The chief points at issue were the claims on the part of the seamen for a higher scale of wages, and for certain improvements in the working conditions, more particularly with reference to the elimination, where possible, of the necessity for taking a high watch immediately after being on duty the greater part of the day, as when leaving port or the canals. In the course of the discussion before the Board a number of difficulties and misunderstandings were cleared up, but it was found impracticable to adopt any rigid rule or rules with reference to the hours and duties of seamen, owing to the varied conditions of the shipping business and the variety of the vessels employed. The vessel owners, however, unanimously agreed to the following conditions submitted by Mr. James Cuttle, of Montreal: "That the managers of the different companies give instructions to their captains that, wherever practicable, the seamen be given an opportunity to obtain rest before going on watch." This was considered by the representatives of the seamen as a reasonable treatment of the matter.

The question of wages was discussed at considerable length. Though wages had not been materially increased for the past four or five years, yet in view of the uncertainty of the outlook for the present shipping season, it was considered inexpedient to press for an increase of wages at the present time. Should, however, the Western Provinces be favoured with a good harvest, thus promising good cargoes in the autumn, the members of the Board were convinced that the wages of the seamen, from September to the end of the season of navigation, should be substantially increased.

Though no formal agreement was found necessary in this case, yet the general result of the proceedings before the Board was to clarify the situation, to improve the relations between the vessel owners and the seamen, and to dispose of any prospective troubles on the Canadian side of the lakes for the season just opening.

I have the honor to be,

Yours sincerely,

(Sgd.) ADAM SHORTT,

Chairman, Board of Conciliation.

III.—APPLICATION FROM EMPLOYEES OF THE MANITOBA AND SASKATCHEWAN COAL COMPANY, LIMITED, OF BIENFAIT, SASK.—BOARD ESTABLISHED—NO CESSATION OF WORK.

Application received—March 16, 1908.
Parties concerned—Manitoba and Saskatchewan Coal Company, Limited, and employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and hours.
Number of employees affected—50.
Date of constitution of Board—April 22, 1908.
Membership of Board—His Honour Judge Dawson, Winnipeg, Man., Chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. Geo. R. Crowe, Winnipeg, Man., appointed on the recommendation of the employers; Mr. F. H. Sherman, of Taber, Alta., appointed on the recommendation of the employees.
Report received—December 8, 1908.
Result of inquiry—Strike averted.

This dispute was alleged by the employees affected to have resulted from failure to agree on hours, conditions of labour and rates of wages. The claims of the employees called for full recognition of the United Mine Workers of America, an eight hour day and the "standard wages of District No. 18, as now prevailing in the lignite fields of Southern Alberta." The Board appears to have investigated the dispute without delay, but according to the representations to the Department some misunderstanding seems to have occurred among the members of the Board with respect to the manner of preparing and forwarding their report to the Minister, and an unusual delay occurred in consequence, the report in question not being formally received in the Department until the date above named. It has not, however, been represented to the Department that the question of the settlement of the dispute to which the report related was at all prejudiced by this delay.

The report of the Board recommended the payment of the same rate of wages and contract mining rates as those prevailing at the Taylorton and Roche Percée coal mines. The rates at the Taylorton mines, it may be remarked, were arranged before a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act during the summer of 1908. In the present case the Board could not see its way to recommend an eight-hour working day. The demand for coal from the mine at Bienfait was said to be uncertain and the coal was stated not to be of a character suitable for

storing; consequently some elasticity in the matter of hours was, in the opinion of the Board, desirable. No opinion was expressed by the Board on the question of the recognition of the Union.

Mr. Sherman, in the minority report, took strong exception to the attitude of the directors of the company in their representations before the Board. Mr. Sherman urged that the United Mine Workers of America should receive full recognition from the Company; he contended that the same rates of wages and the same conditions of labour should prevail at Bienfait as existed in the lignite coal fields of Southern Alberta; he recommended finally that an agreement should be made between the Company and its employees on the same basis as that already in operation as between the Western Dominion Collieries, Limited, of Taylorton, and the United Mine Workers of America.

It was subsequently represented to the Department that the employees affected were not satisfied with the findings of this Board. No cessation of work, however, occurred.

The following is the text of the report of the Board:—

TEXT OF BOARD'S REPORT.

To the Honourable the Minister of Labour,
Ottawa, Ontario.

In the matter of Industrial Disputes Investigation Act, 1907, and in the matter of a dispute existing at Bienfait, Saskatchewan, between The Manitoba and Saskatchewan Coal Company, Ltd., Employers, and their employees as represented by District No. 18, United Mine Workers of America, Employees.

Submitted on the 22nd day of April, A.D., 1908, by the Department of Labour to the Board of Conciliation and Investigation, consisting of: The Honourable Alexander Dawson, Winnipeg, Mr. George R. Crowe, Winnipeg, Mr. F. H. Sherman, Taber, Alta.

The said Board begs to report that the majority of Board reports as follows:—

(1) We were unable to effect a settlement of the disputes between the employers and the employees:

(2) We do not feel called upon to give any opinion as to whether or not the Union should be recognized.

(3) We do not consider that the rate of wages in the Lignite Fields of Southern Alberta should govern the rate of wages in the Lignite Fields of Eastern Saskatchewan.

As to an eight-hour working day, from conversation with the employers and employees, and from the evidence given (a copy of which is sent herewith), there does not appear to be a general desire for same. The working of this mine must necessarily be conducted in a different manner from one which is worked for all or nearly all the year. There is practically no demand for the Bienfait Coal for a considerable portion of the year. During the summer the quantity of coal taken from the mine is very limited. It would not be desirable or even practicable to establish a rigid system of an eight-hour working day, besides the coal is of such a nature that it does not stand storage and at the season of the year when a somewhat heavy demand arises for this coal unless there is some elasticity as to the hours constituting

a working day very considerable loss would arise to the employers, and we are not able to see that an eight-hour working day firmly adhered to would be in the best interest of the employees.

We recommend that the same rate of wages and contract mining rates be paid at the Manitoba and Saskatchewan Coal Company, Ltd. mine as prevail at the Taylorton and Roche Percee Coal mines.

Winnipeg, 26th day of November, A.D., 1908.

(Sgd.) A. Dawson,
G. R. Crowe.

TEXT OF MINORITY REPORT.

Minot, Alta., Dec. 17, 1908.

To the Honourable the Minister of Labour,

Ottawa, Ontario.

In the Matter of the Industrial Disputes Investigation Act, 1907, and in the matter of differences between the Manitoba and Saskatchewan Coal Company of Bienfait, Sask., and its Employees.

Submitted on the 22nd day of April, A.D., 1908, by the Department of Labour to the Board of Conciliation and Investigation, consisting of The Hon. Alexander Dawson, Winnipeg, Mr. George R. Crowe, Winnipeg, Mr. F. H. Sherman, Taber, Alta.

The undersigned acting as a representative of the Employees on the above Board begs respectfully to submit the following as a minority report.

The failure to bring about a settlement of the above dispute was chiefly owing to the arrogant attitude assumed by Senator Watson and his fellow directors. Their principal contention being that they refused to recognize the right of any labour union to make a collective agreement on behalf of their employees.

I regret that my colleagues upon the Board of Conciliation and Investigation failed to express their opinion one way or the other upon this important question, as affecting employers and employees. Every other Board upon which I have had the honour to serve has decided that the employees have a right to make a collective agreement through their respective unions.

I, therefore, say that the United Mine Workers of America should receive full recognization at the hands of the Company. No evidence was given to show that the Company were not making as much profit as the mines in the lignite coal fields of Southern Alberta, the work being very similar. The cost of living is little if any cheaper. I think that the same rates and conditions of labour should prevail at all mines competing in that same market.

I, therefore, recommend as a basis of settlement that an agreement should be made between the Company and the Union upon the same basis as the agreement now in force between the Western Collieries, Limited, of Taylorton, Sask., and the U.M.W. of A. All of which is respectfully submitted by,

Yours obediently,

(Sgd.) F. H. Sherman.

IV.—APPLICATION FROM EMPLOYEES OF THE WESTERN DOMINION COLLIERIES, LIMITED, OF TAYLORTON, SASK.—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—March 16, 1908.
Parties concerned—The Western Dominion Collieries, Limited, and employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and hours.
Number of employees affected—90.
Date of establishment of Board—April 10, 1908.
Membership of Board—His Honour R. H. Myers, County Judge, Winnipeg, Man., Chairman, appointed on the joint recommendation of the other members of the Board; Mr. Jas. O. Hannah, Calgary, Alta., appointed on the recommendation of the employers; Mr. F. H. Sherman, Taber, Alta., appointed on the recommendation of the employees.
Report received—May 5, 1908.
Result of inquiry—Differences adjusted and agreement concluded before Board, effective from May 1, 1908, to May 1, 1909. Strike averted.

The questions at issue in this matter were stated in the application to be as follows:

Full recognition of the United Mine Workers of America; eight hours work per day; and standard wages of district No. 18, "as now prevailing in lignite fields of Southern Alberta." The Company in its reply insisted that the wage scale was practically the same as that which had been in use for five years, and was that in use in the Souris Coal fields, and submitted that uniformity of wages should govern in respect to the same class of work in the said area. The claim for increase was said to be based on the wage schedule as existing at Lethbridge, Alta., and Taber, Alta., where the coal was bituminous, whereas the coal mined by the present Company at Taylorton was lignite, and sold at an amount half the price of the products of the bituminous mines, this low price being one that would not allow of any increase in the cost of production.

The Board met at Winnipeg on April 16 and organized, meeting then successively on April 17, 18 and 20. On the evening of Monday, April 20, a joint conference was held between the members of the Board in the present case, and Judge Dawson and Mr. G. R. Crowe, members of a Board established to deal with differences between the Manitoba and Saskatchewan Coal Company and its employees at Bienfait, Sask., in the close vicinity of the scene of the present dispute, Mr. Sherman being a member of both these Boards. The two Boards proceeded together to Bienfait on April 29, and

held joint sessions there with the object of reaching an agreement in each case. The discussion showed, however, that it was impossible to reach a joint agreement, and the Boards then proceeded separately. The final meeting of the Board in the present case was held on April 30. The evening session on this occasion extended until 3 a.m. on May 1, when an amicable agreement was reached on all points, and signed by both parties. The agreement included full recognition of the United Mine Workers of America, and the cessation of the check-off system. On all other points an arrangement was reached by mutual compromise. The text of the report and agreement follows.

REPORT OF THE BOARD.

In the matter of the Industrial Disputes Investigation Act, 1907, and of a dispute between The Western Dominion Collieries, Limited, and the Employees of the said Company.

The Board of Conciliation and Investigation appointed herein under the provisions of the above named Act and composed as follows:—Frank H. Sherman, of Taber, Alta., recommended by the employees; James O. Hannah, of Calgary, Alta., recommended by the Company; and His Honour Judge Robert H. Myers, of Winnipeg, Man., appointed by the Minister of Labour as Chairman of the Board, beg to report as follows:—

By mutual agreement we met first in the city of Winnipeg on Thursday, the 16th day of April, 1908, at 10 o'clock in the morning, all the members of the Board being present. The members subscribed and took the oaths of office before His Honour Judge Walker and His Honour Judge Myers, Justices of the Peace.

The Board met each forenoon and afternoon of the 16th, 17th, 18th and 20th days of April endeavouring to bring about a settlement of the differences between the Company and its employees, which differences were ascertained to be briefly as follows:—

1. Recognition of the Union.
2. Hours of labour.
3. Rate of wages.
4. Employment of a check weighman.
5. Price of powder.
6. Re-instatement of discharged men.

The coal mine affected was at Taylorton, Saskatchewan, and during our conferences we became aware of the establishment of another Board with another chairman to endeavour to settle a similar dispute in the same coal fields between the Manitoba and Saskatchewan Coal Company, Limited, and its employees. This fact retarded our negotiations, although considerable progress was made. Mr. John R. Galvin and Mr. Sherman represented the miners, and Mr. R. R. Taylor, General Manager, and C. C. Symons, Mine Manager, represented the company at these conferences.

On Monday night, 20th April, 1908, the Board held a joint conference with His Honour Judge Dawson and Mr. G. R. Crowe, of the other Board, and we decided to go to the coal fields on Wednesday, 29th April, and endeavour jointly to effect a conciliation.

The two Boards proceeded to Bienfait, Saskatchewan, on the 29th April and held a joint meeting that evening.

On Thursday, the 30th April, the Boards held a joint meeting at the mine, when it was plainly apparent that the Manitoba and Saskatchewan Coal Company had resolved to fight the Union and declined to confer with the officials of the U.M.W. of A., who represented all the men at the mine. The Boards, therefore, proceeded separately. Our Board met the officers of the Company and of the Union, and we made many efforts to induce the parties to come to a fair and amicable settlement. We adjourned until 8 o'clock p.m., when we again met at Taylorton and continued in session until 3 o'clock a.m. of the 1st May, when an amicable agreement was reached. The Chairman drew up the draft agreement, and it was duly signed in our presence, and a copy thereof is transmitted herewith. The Board met again in Winnipeg on Monday, 4th May, 1908, when the typewritten copies of said Agreement were produced and examined and signed.

The Board are unanimously of the opinion that the agreement effected is fair and reasonable under the conditions prevailing in these coal fields.

The Board having concluded its labours agreed upon the above report.

All of which is respectfully submitted.

R. Hill Myers,
Chairman.

F. H. Sherman,

James O. Hannah.

Dated at Winnipeg, this 4th May, 1908.

AGREEMENT.

It is hereby agreed between the Western Dominion Collieries, Limited, of the first part, and the employees of the said Company as represented by the United Mine Workers of America, District No. 18, of the second part, as follows:—

1. This agreement covers the mines and outside plant operated by the said Company, and all persons accepting employment at these mines agree to be governed by the following rules and regulations:—

(a) In case any dispute or grievance arise under this agreement or any local agreement made in connection therewith, whether the dispute or grievance is claimed to have arisen by the Company or any person or persons employed, or by the men as a whole, then the parties shall endeavour to settle the matter as hereinafter provided. But before any grievances shall be submitted to the Pit Committee, the person or persons affected shall endeavour, by personal application to the Pit Boss, to settle the matter, and in the event of them agreeing, their decision shall be final.

(b) In case of any local dispute arising in any mine, and failure to agree between the Pit Boss and any employee, the Pit Committee and Mine Superintendent shall endeavour to settle the matter, and if they agree, their decision shall be final.

(c) In the event of the failure of the Pit Committee and the Mine Superintendent to settle any dispute so referred to them, as well as in the event of any other dispute arising, the matters in dispute shall be

referred to the General Superintendent or General Manager of the Company and the Officers of District No. 18, U.M.W. of A., for settlement, and if they agree their decision shall be final. Should they fail to agree, it shall be referred to a joint committee, said committee to be made up of three operators appointed by the Company, and three miners appointed by District No. 18 of the U.M.W. of A., for settlement. If they agree their decision shall be binding upon both parties. A majority of the full committee must vote in favour of any action before it can be declared carried. In the event of a failure to agree, the committee shall endeavour to select an independent chairman, and failing to agree upon an independent chairman, the Minister of Labour shall be asked to appoint such chairman; the decision of the committee thus constituted shall be binding upon both parties. The joint committee, when necessary, shall meet on the second Monday of each month.

(d) In the meantime, and in all cases, while disputes are being investigated and settled, the miners, mine labourers and all other parties involved must continue to work pending investigation and until final decision has been reached, but where miner, miners, mine labourer or mine labourers has or have been discharged by the Company, he or they shall not remain in the employ of the Company while his or their case is being investigated and settled. If a claim be made within five days where a man or men has or have been unjustly discharged, the case shall be dealt with according to this article, and if it is proven that he or they have been unjustly dealt with, he or they shall be reinstated. If claim is made for compensation for time lost in cases where reinstatement has followed, it shall be left to the joint committee to decide what amount, if any, is to be paid.

(e) Any breach of this agreement by any of the parties hereto is not to void the said agreement, but same is to continue in full force and effect. It is not intended, however, by this sub-section to abridge the right of the men to suspend work after final settlement as herein provided, if any operator or operators refuse to be bound by any decision given against them under this article.

Provided, nevertheless, that the right to hire and discharge employees, the management of the mine, and direction of the working forces, are vested exclusively in the Company and the U.M.W. of A., shall not abridge this right.

2. No miner working at contract work on coal shall be allowed to hire labourers.

3. The Company agrees to give the U.M.W. of A. a full recognition and agrees to the check-off system, that is to say, upon the individual request in writing of any of the Company's employees, the Company shall deduct such monies from their wages as is designated for dues, assessment fines and fees, and pay same over to the payee of such orders.

4. The hours of labour for all outside men shall be 10 hours per day, and for all inside or underground men shall be 8 hours per day at their working place or at place of mine, as the case may be.

Provided, however, that in cases of emergency when the Company receive rush orders for coal the men agree to work overtime to enable the Company to fill such orders at the same rate of wages per hour for extra time as provided in the wage schedule hereunder.

5. The Company will grant the right of the miners to employ check-weighers and will grant the said check-weighers every facility to enable them to render a correct account of all coal weighed, and will allow the cars to be tared from time to time, and the machine to be properly tested from time to time, and will deduct from the wages of all contract miners

such amounts as individual orders may be presented for from time to time, and will pay over the same to the Secretary of the Local Union for wages of check-weighers. Provided that the check-weighers shall be taken from among the Company's employees.

6. SCHEDULE OF WAGES:

Hoisting engineer	$ .31¼	per hour
Firemen	65.00	per mos.
Box-car loader	.25	per hour
Dumper	.22½	"
Trimmer	.21	"
Tipple men	.2	"
Carpenters	.30	"
Blacksmith	.32½	"
Blacksmith (second)	.22½	"
Cager	.25	"
Pumpers	.25	"
Drivers	.28⅛	"
Tracklayers	.28⅛	"
Tracklayers' helpers	.26	"
Timber men	.28⅛	"
Timber men's helpers	.26	"
Door boys	.12	"
Teamsters	.21½	"

Contract miners rates to remain as at present.

7. The price of powder, fuel and rents shall remain as at present.

8. This agreement shall commence from this 1st day of May, 1908, and terminate on the 1st day of May, A.D. 1909.

Signed and agreed to this 1st May, 1908.

(Signed) R. R. TAYLOR,
General Mgr. Western Dominion Collieries, Ltd.

(Signed) C. C. SYMONS,
Mine Manager.

(Signed) F. H. SHERMAN,
President, District No. 18, U.M.W. of A.

(Signed) JOHN R. GALVIN,
Vice-Pres. District No. 18, U.M.W. of A.

Witnesses:

(Signed) R. HILL MYERS,

(Signed) J. O. HANNAH.

V.—APPLICATION FROM EMPLOYEES OF THE CUMBERLAND RAILWAY AND COAL COMPANY, OF SPRINGHILL, N.S.—BOARD ESTABLISHED—NO CESSATION OF WORK.

Application received—March 25, 1908.
Parties concerned—Cumberland Railway and Coal Company, Limited, of Springhill, N.S., and employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages.
Number of employees affected—1,600.
Date of constitution of Board—April 29, 1908.
Membership of Board—His Honour W. B. Wallace, County Judge, Halifax, N.S., Chairman, appointed by the Minister in the absence of a joint recommendation from the other members of the Board; The Honourable John M. Armstrong, North Sydney, N.S., appointed by the Minister in the absence of a recommendation from the Company; Mr. R. B. Murray, Springhill, N.S., appointed on the recommendation of the employees.
Report received—May 26, 1908.
Result of inquiry—Strike averted.

The application in this case was received from the officers of Mechanics' Lodge, No. 23, Provincial Workmen's Association, and set forth the following demands: (1) An advance on wages for repair work. (2) An advance on wages for No. 3 mine fanmen. (3) An advance on wages for Charles Roney, carpenter. (4) An advance on wages for Wilson Demmings, car inspector.

The Cumberland Railway and Coal Company, in a communication to the Department, stated that the Company would take no part in the proceedings in connection with the application, for the reason that the application was made contrary to the terms under which the members of Mechanics' and Pioneer Lodges resumed work on October 29 preceding, after a strike of thirteen weeks. The Company also set forth replies to the various grievances, taking exception in each case to the claims made. In the matter of repair work, figures were given to sustain the contention of the Company that it was paying higher rates than those paid for a similar class of labour at other mines. Special reasons were urged also against increases of wages being granted in response to the other demands. The Company refused to recommend a person for appointment to the Board. The Board having been duly established by the Minister, as above stated, began its sessions at Springhill on May 13, and heard evidence from representatives of the men, and on behalf of the Company, several officials of the latter being subpoenaed for the purpose. A few days later the Board met again at Halifax for further deliberation, and for the purpose of preparing a report. The findings of the

Board were signed by the chairman and Mr. MacDonald, and were adverse to the claims of the men on each point. The Board added a rider to its findings as follows, viz.:

> "The Board deems it proper to add to its findings this statement—that the declaration in the 'ultimatum' issued by the General Manager of the Company last October, when the men returned to work, 'that there cannot be any increase in wages in the district covered by the award now or later,' would not in any way have interfered with a finding in favour of any of the applicants herein, if the evidence submitted to the Board justified such a finding."

Mr. Murray, in a minority report, supported the claims of the men in several cases. In the matter of repair work, he held the ten men doing underground repair work to be entitled to the advance demanded, but as to the one man doing overground repair work, the claim advanced was not sustained, though an increase on this man's present wages was recommended. In the case of the fanmen, Mr. Murray's findings agreed with those of the Board. In the cases of Roney and Demmings, Mr. Murray recommended the increases demanded. The text of the report and minority report follows:—

TEXT OF REPORT OF BOARD.

In the matter of the Industrial Disputes Investigation Act, 1907, and of The Cumberland Railway and Coal Company, Limited, Employer, and certain employees of the said Cumberland Railway and Coal Company, Limited, Employees.

The Board composed of Mr. R. B. Murray, Hon. J. N. Armstrong and Judge Wallace, Chairman, met on the 13th day of May, 1908, at ten o'clock at a public hall in Springhill, the locality of the dispute between the above parties, and having taken the oath of office, proceeded with the reference.

The employees were represented by three of their number designated by Mechanics' Lodge, No. 23, P.W.A., of which all the employees interested are members. Their case was conducted by them in a fair and upright way. The Company was not represented, having declined to take part in the reference, on the ground that the terms of an "ultimatum" issued by the Company during a strike last year were accepted by the present employees when they resumed work, and therefore acted as a bar to this inquiry. The Board sat in the morning and afternoon of the 13th, and during that time all the witnesses offered on behalf of the employees were examined and their examination concluded. At the close of the afternoon sittings, the chairman, after consultation with the other members of the Board, announced that the Board had decided, inasmuch as any decision to be finally given by the Board in this matter, would be entitled to greater weight if evidence were submitted by each party to the dispute, to subpoena the General Manager and the Manager of the Company. Accordingly the Board adjourned until ten o'clock, May 14th, and in the meantime the subpoenas were issued by the chairman and duly served. At the opening of the sittings on May 14th, Mr. J. R. Cowans, General Manager of the Company, and Mr. Hargreaves, Manager of the Company, were in attendance. Two other officials of the Company, Mr. David Stewart and Mr. Muirhead, were also present, and it appearing that Mr. Stewart, assistant to the General Manager of the Company, and

Mr. Muirhead, Mechanical Superintendent, were more familiar with the points at issue than the gentlemen who had been subpoenaed, it was unanimously resolved by the Board to call Mr. Muirhead and Mr. Stewart as witnesses, and they were accordingly examined. The chairman informed the Lodge Committee that those witnesses could be cross-examined by them or any of them, and various questions in cross-examination were asked of each witness by the members of said committee.

The Board then adjourned, to meet at Halifax to consider the case and make a report.

The Board met at Halifax on May 18th, and sat from 10 o'clock until 4, with an hour's intermission at noon. The Board—a majority thereof—sat again from 5 o'clock until 6 o'clock, and again from 7 o'clock until 11 o'clock, deliberating and preparing a report. Considerable time was spent on subsequent days by individual members of the Board preparing the majority and minority report respectively.

The following are the findings of the Board:—

There are four classes of cases, "A," "B," "C" and "D," in dispute between Mechanics' Lodge, No. 23, P.W.A., and the Cumberland Railway and Coal Company, Limited.

Claim "A" is in respect to an advance of wages for repair work. There are two classes of men in the mechanical branch, working on repairs, viz., those who labour underground and those whose work is performed on the surface, the present rate of wages for the former class being 15 cents per hour, plus 22 per cent., and the rate for the latter class being $1.20 plus 22 per cent. per day. The wage now asked for on behalf of this class of underground and surface work is a flat rate of $1.85 per day of 8 hours for underground men and 10 hours for surface men.

Undoubtedly, the work in question is disagreeable and trying.

It is urged by the applicants, as a justification for the increase desired, that this class of work commands a higher rate of pay in some other collieries, and as proof of this contention, the schedule of rates applicable to the Dominion Coal Company's employees was put in evidence. In reply, the Mechanical Superintendent of the Cumberland Railway and Coal Company testified that this class of men were paid at a higher rate at Springhill for the same number of hours than the employees of the Dominion Coal Company. The tabulated statement marked "W" in the written answer of the company was also verified by the Assistant to the General Manager.

The applicants for an increased rate of pay seemingly regard this question of the rate of pay prevailing in other similar employment within the Province of Nova Scotia under similar conditions as affording a fair test to enable the Board to determine what would constitute a fair wage. Applying that test, which is generally a fair one, to the issue before the Board, and examining the whole of the evidence upon that question, the Board finds that the applicants in this class are paid at least as high a rate for the number of hours as men of a similar class employed by the Dominion Coal Company.

The Board finds that the applicants in this class have not established their claim to the desired increase.

Claim "B" is on behalf of the fanmen at No. 3 Mine. An objection was raised by the company in regard to this claim, and also in respect to the two following claims, that as the persons affected were less than ten in number, the act did not apply. The chairman ruled against this objection.

The present rate of wage for the fanmen per day of 12 hours is $1.20 plus 22 per cent. They ask for a flat rate of $2.00 per day of 12 hours. The Board finds that the work which they have to perform is work generally given to old and infirm employees. One of the claimants has been sick for

two years and could not perform any other work, and, therefore, applied for this work. The other claimant had a crippled leg and he requested a similar job. It was asserted on behalf of these men that workmen doing similar work for the Dominion Coal Company get a better rate of pay, but the Board finds that the employees doing this work at the works of the Dominion Coal Company have also the responsibility for the air compressors, and that their work is substantially different.

The Board therefore unanimously rejects this claim.

Claim "C" related to Charles Roney. It appears that he is in the same class and is paid at the same rate as ten others. They are not skilled workmen, but might be described as handy men. While there may be only a slight difference between this claimant and some of the men in the class just above him, the Board finds that the applicant in this case has not established his claim for the increased wage.

Claim "D" relates to the case of Wilson Demmings, car inspector. His wage is $1.30 plus 22 per cent. per day. Applicants ask on his behalf a flat rate of $2.00 per day, claiming that this is the rate which such class of work commands elsewhere. This employee has now the benefit of an assistant at his work, and the duties of Mr. Demmings have not increased since the increase of pay given him. It was amply shown by evidence to the satisfaction of the Board that Mr. Demmings is a painstaking, industrious and capable employee, but the Board cannot find that he has established his claim to the increased rate asked for by him.

The Board deems it proper to add to its findings this statement,—that the declaration in the "ultimatum" issued by the General Manager of the company last October, when the men returned to work,—"that there cannot be any increase in wages in the district covered by the award now or later," would not in any way have interfered with a finding in favour of any of the applicants herein, if the evidence submitted to the Board justified such a finding.

Enclosed herewith are the evidence and exhibits used in the reference.

Respectfully submitted,

(Signed) W. B. Wallace,
(Signed) J. N. Armstrong.

May 21st, 1908.

The Honourable Rodolphe Lemieux,
Minister of Labour,
Ottawa, Ont.

TEXT OF MINORITY REPORT.

In the matter of the Industrial Disputes Investigation Act, 1907, and of a dispute between The Cumberland Railway and Coal Company, Limited, Employer, and Mechanics' Lodge, No. 23, P.W.A., Employees.

Honourable Rodolphe Lemieux,
Minister of Labour,
Ottawa,

Sir:

I have the honour to submit the following report with respect to the above reference.

It is with much regret that I cannot place on record the concurrence of my colleagues on the Board in the findings and recommendations I have arrived at in regard to the cases submitted under such reference.

The Board, composed of His Honour Judge Wallace, Chairman; Honourable J. N. Armstrong and R. B. Murray, met at Springhill on Wednesday, the 13th May, 1908, at 10 a.m., after subscribing to the prescribed oaths of office and some introductory remarks by the chairman the taking of evidence was proceeded with.

The Secretary of the Lodge filed a certificate appointing Messrs. Fox, McInnes and Price as its representatives as provided by the Act. They seemed to have a carefully prepared brief of the evidence of each witness, and at the close of the first day's enquiry were complimented by the chairman on the creditable way in which they presented their case. The company was not represented at the first hearing, but later on in the enquiry subpoenas were issued by the chairman calling on the General Manager and Manager of the Company to appear and give evidence. They were present the following morning and requested that Messrs. Stewart and Muirhead, assistant to the General Manager and Mechanical Superintendent respectively, take the stand in the company's behalf. This they did, Mr. Stewart confining himself mainly to reiterating the company's statement in reply to the Lodge's claims, and Mr. Muirhead to a contention that the existing wages paid to the men on whose behalf the Act was primarily invoked, were as high as labour of a class commanded elsewhere. Messrs. Stewart and Muirhead were subjected to a mild cross-examination by the representatives of the Lodge, and were asked some pertinent questions by the members of the Board. This completed the taking of evidence, and the Board adjourned to meet again in Halifax on the following Monday. Conferences by the members were held in the morning and afternoon of that day in the chairman's office in the Court House. It shortly developed that the majority of the Board held totally opposite views with regard to the cases in dispute to that of the other member, although when the Board finally dispersed, the chairman freely admitted his mind was still open on one case, i.e., the "repairs rate case." It was decided, however, that the reports of the Board's findings should be forwarded to the Department, one, representing the views and recommendations of the majority, the other embodying the conclusions and recommendations of the minority member.

In the application for this reference, there were four cases set out as being in dispute between the Lodge and the company, these cases were designated in the application as follows:—

First case is in respect to an advance on wages for repair work.

Second case is in respect to an advance on wages for No. 3 fanmen.

Third case is in respect to an advance on wages for Charles Roney, carpenter.

Fourth case is in respect to an advance on wages for Wilson Demmings, car inspector.

Although the foregoing cases were not taken up by the Board in the order named it is the intention of the writer to discuss and report on them in successive following; therefore, the "repairs rate" shall be the first under consideration.

FIRST CASE.

The evidence disclosed that in this employ there are at least two classes of repair work in connection with the mechanical branch, repairs to steam pipes and machinery underground and repairs to pipes and machinery overground, including cleaning of boilers. In the underground section there seems to be about ten men affected, and in the overground one man only, Andrew McCarren, claimed redress at the hands

of the Board. For the underground men, the witnesses, George McLeod and John Campbell, gave evidence which seemed conclusive, that their work was performed frequently in high temperatures, sometimes at 116 degrees, their hours were erratic, being subject to a call at any time during the night, when their day's work is over, and in addition to this, to use their own language, " we are frequently employed on Sundays." The present rate of pay for these men is 15 cents per hour plus 22%, their contention being that this rate is altogether inadequate for the class of labour they are called upon to perform. In view of their receiving no excess pay for their Sunday work or extra calls, as it appears is customary in other places in similar industries and on works where Sunday labour is necessary, and in view likewise of their having to work mostly under conditions and at a temperature which they claim is hazardous and must of necessity be prejudicial to health, the claim the Lodge is making in their behalf of 39c per day of eight hours extra surely cannot be considered an unreasonable one. The Company, through Mr. Muirhead, contends that these men are sufficiently paid already. This is natural, and usually the plea put forward in such cases by employers, but it does not lessen the fact of the soundness of the men's claim notwithstanding. To emphasize the reasonableness of the Lodge's contention, they put in evidence a telegram from the General Manager of the Company wherein an express promise was made that under certain conditions this matter of repair rates would be adjusted to the satisfaction of the men interested. The Company now repudiate that telegram, or as Mr. Stewart puts it for them, "The whole thing is now off."

So convinced am I that the Lodge has made their claims and contentions good with regard to this underground repair work, I have no hesitation whatever in recommending that men at this class of work should be paid a flat rate of $1.85 per day of eight hours, my conviction is, taking all the circumstances into consideration, any jury in the land should award them at least this amount.

With respect to the other class of repair work with which Andrew McCarron alone is interested, this man swears he is at present and has been for the past sixteen months, employed in the class of labour known as overground repair work and tending engines and boilers at the machine shop and No. 1 mine, his duties also consist in cleaning boilers at No. 2, 3 and Aberdeen mines. His present rate of wage is $1.46 per day, and in the Lodge's application a request was made on his behalf for $1.85 per day. His evidence shows that when he is occasionally taken from his usual work of repairs and boiler cleaning and put to tending engines and boilers, he has been paid the rate of wage which such latter work calls for, and which is in excess of the pay he receives when at the former class of labour. Beyond a doubt, the cleaning of boilers is hot and very dirty work, and $1.46 appears a very small day's pay for the performance of it. McCarron has frequently to be in charge of two or three men and receives only 6c per day more than they do. Is it not fair to assume that the man who directs should get more than 36c per week over the men who are directed?

The company, through Mr. Muirhead, seem to have little to say with respect to this case. It was admitted the work of cleaning boilers was dirty, but nothing was said by this witness that would indicate that the claim made on behalf of McCarron was an unfair one. This may have been an oversight on Mr. Muirhead's part, but should not now be pleaded to the prejudice of McCarron. It may be safely inferred, however, that McCarron cannot be classed as a skilled labourer in the same sense as the underground repair men, nor could he, if called upon to do so, be able to

perform the same grade of work as McLeod and Campbell and the others who have Winfield McInnes as their leading man. On that account, and for the further reason of the trend of the evidence, I cannot uphold the Lodge's claim of $1.85 per day for this man, but strike a medium and recommend that his pay should be increased from $1.46 to $1.65 per day of ten hours.

SECOND CASE.

Concerns two men, Arthur Cooke and John D. Cameron. These men are employed as fanmen at No. 3 mine, they work on twelve hour shifts opposite to each other. From the evidence, it seems their work consists in the main in constant attendance on their engines, and the principal feature of it is its monotony. The job under the law requires the holders to be possessed of certificates of competency. Cooke and Cameron's pay is at present $1.46½ for twelve hours, the Lodge has asked on their behalf $2.00 for the same time. The Company take very strong exception to this case, and claim that it was work suitable only for broken down or worn out men, and was given to Cooke and Cameron "simply because they made application, and if they are able to perform other duties, there is a good job open to them." Mr. Muirhead further stated that a boy ten years old could do equally as well the work that is necessary.

Taking this matter into long consideration and viewing it as I have from every aspect and with a full knowledge of the responsibility it involves upon me, I am led to the conclusion that in a spirit of fairness I cannot do otherwise but recommend that the prices for this class of labour remain as at present, but this recommendation is not to be treated as a precedent for future demands by the Lodge or individuals employed at it, for an increased pay in respect to it.

THIRD CASE.

This relates to a demand for an increase of pay for Charles Roney, a carpenter, from $1.40 plus 22% to $1.60 plus 22%. The evidence goes to show that Roney has been engaged for fifteen years or more at the carpenter trade; he works side by side with two others who receive $1.60 plus 22% and does exactly the same class of work as they perform; he swears he is equally competent as they, working at finishing houses, making trolleys, wood wagons, mine cars, etc. He swears also the work is all alike, that of one being no better or worse than the others. The witness, Anthony Johnson, corroborates Roney's testimony in nearly every particular, and swears Roney is a competent and efficient carpenter, and conscientiously says that his present rate is inadequate for his services and not in accordance with other carpenters in the employ who receive $1.60 plus 22% per day, and further from his knowledge of Roney's ability and that he does exactly the same class of work as the two others referred to, he should receive the same wage as they. The Company make reply to this by stating that Roney is not a tradesman, and name him as a "handy man," and in the same class as ten others. Mr. Muirhead swears that Roney is on a par with the ten men referred to and that they are not skilled workmen. Inasmuch as Roney is not in Mr. Muirhead's department, not much credence should be given to the latter's evidence; it was evidently made in good faith, but must, of necessity, be largely hearsay and not from a personal knowledge of the facts. That Roney *is* a trades-

man in the broad sense of the word can hardly be doubted, and to classify him with the box repairers on the bank heads is unfair. The telegram from the General Manager hereinbefore referred to contains this clause, "Charles Roney's claim will be considered when work is resumed as well, and if he is entitled to the wage he requests, the same will go into effect from the 16th instant (i.e., August, 1907)." The question then arises has the Lodge proved that Roney is entitled to the wage he requests, or should the mere *ipse dixit* of the Company be taken that he is little better than a wood butcher? It strikes me the only fair and tenable ground for me to stand on with respect to this third case is to recommend that Charles Roney receive a daily wage of $1.60 plus 22%, and I so recommend accordingly.

FOURTH CASE.

As stated in the application, "is in respect to an advance on wages for Wilson Demmings, car inspector." Here is a man who has been in the employ for fourteen years, sober, painstaking, careful and industrious, with the lives of the travelling public and valuable rolling stock committed to his care, a letting up of vigilance on his part would result in loss of life and property, and yet his pay only amounts to the meagre sum of $1.58½ per day. He swears that during all the time he has been car inspector, there has never been a case where an accident has occurred through any neglect on his part; he also swears he has tried on various occasions to get consideration by way of increased pay, and they (the company) gave him the impression they would consider it favourably. Demmings' evidence is reinforced in a most convincing way by that of George Watt, I.C.R. car inspector at Springhill Junction, who, among other things says that Demmings' duties are practically the same as the duties of a car inspector on the I.C.R. For such work as he (Demmings) has to perform, they would receive $2.00 per day on the I.C.R. for 10 hours. The witness also testified that considering the duties Demmings is called upon to perform, the sum asked ($2.00) is quite reasonable.

The company, as in Roney's case, set up the plea that Demmings is being sufficiently paid already, and Mr. Muirhead, who, although he testified to having nothing to do with Demmings, not being in his department, sought to break down the weight of Mr. Watt's evidence by making a comparison of the work of the latter with that of Demmings, which is not the case in point at all. Watt is the head car inspector at the Junction, and receives 24c per hour and extra pay for overtime and night work. The proper comparison should be with the men under Mr. Watt, who receive 20c per hour, and for night work time and a half, and whose work is identical with that performed by Demmings.

The evidence tendered by the Lodge in support of this claim is to me so convincing, I have no hesitation whatever in arriving at the decision that they have made out a case. I accordingly recommend that Wilson Demmings shall have his present rate of wage of $1.58½ per day increased to that of $2.00 per day of ten hours.

The company, in their reply to the application, contend as regards cases 2, 3 and 4, there being less than ten men affected, the Act does not apply and the Board would have no jurisdiction to hear and determine them. They have made the same objections before previous Boards. If there is anything in the contention it should be known, and if there is nothing in it, it should also be known. I have always taken a contrary view, and in support of my opinion quote a decision from the Honourable the Minister of Labour, governing the matter:—

"My understanding of section 21 of Industrial Disputes Investigation Act is, that if the number of employees directly or indirectly affected by a dispute is ten or more, the dispute may be referred to a Board, though the parties to whom it may directly relate are fewer in number than ten. If the failure to effect a settlement in regard to a matter affecting only six men is likely to result in ten or more being immediately or subsequently affected, the reference of such a dispute would in my opinion come very properly within the provisions of the Act."

(Signed) RODOLPHE LEMIEUX,
Minister of Labour.

In submitting a minority report of a previous Board, I took occasion to insert therein the following words, "It is the earnest hope of the undersigned that the finding of the Board in the cases which have been investigated will be cheerfully acquiesced in and agreed to by the parties interested."

Seeing that since those words were written there have been two Conciliation Boards convened in Springhill, in both cases the award being given against the Company, and each finding totally ignored by them, it would appear to me to be unfair to repeat the quoted words in this instance; yet it is my belief it can be safely anticipated the employees will do nothing in the premises to lessen their dignity or jeopardize the confidence which the public has in them.

It can be said with a certainty for the Company, judging by past experience, the present award being in their favour will be received and accepted with jubilation, and my exception to case No. 2 in this reference will no doubt be quoted in the future *ad nauseum*.

I have the honor to be, Sir,

Your obedient servant,

(Sgd.) R. B. MURRAY.

Dated at Springhill, N.S., 21st May, 1908.

VI.—APPLICATION FROM EMPLOYEES IN THE MECHANICAL DEPARTMENTS OF THE CANADIAN PACIFIC RAILWAY COMPANY—BOARD ESTABLISHED—EMPLOYEES AT FIRST REFUSED TO ACCEPT FINDINGS AND CEASED WORK—RECOMMENDATIONS OF BOARD FINALLY ACCEPTED, EMPLOYEES RETURNING TO WORK.

Application received—April 28, 1908.

Parties concerned—Canadian Pacific Railway Company and various trades in its mechanical departments.

Applicants—Employees.

Nature of industry concerned—Railways.

Number of employees affected—8,000.

Date of constitution of Board—May 13, 1908.

Membership of Board—Mr. P. A. MacDonald, Master in Chambers, Winnipeg, Chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. C. P. Fullerton, Winnipeg, appointed on the recommendation of the Company; Mr. James Somerville, Toronto, appointed on the recommendation of the employees. Mr. Fullerton having withdrawn from the Board before its investigation had been concluded and the Company not recommending a substitute, Mr. G. F. Galt, of Winnipeg, was appointed by the Minister to succeed Mr. Fullerton.

Report received—July 16, 1908.

Result of enquiry—Employees refused to accept findings of Board and ceased work on August 5; the employees returned to work on October 5, accepting the Board's recommendations.

The locality of this dispute was stated in the application to be along the Eastern and Western lines of the Company, but the original application set forth the dispute only in the case of the employees on the Western lines, the trades enumerated in the application as concerned being as follows:—boilermakers, Eastern and Western lines, members of the Brotherhood of Boilermakers and Iron Shipbuilders of America; machinists, Eastern and Western lines, members of the International Association of Machinists; iron moulders, Eastern and Western lines, members of Iron Moulders' Union of North America; blacksmiths and helpers, Fort William to Vancouver, members of the International Brotherhood of Blacksmiths and Helpers; boilermakers' helpers, Fort William to Broadview, members of Boilermakers' Helpers' Union No. 127; specialists and helpers of various trades mentioned, Western lines, members of Federal Unions Nos. 12, 14 and 15; specialists and helpers of various trades mentioned, Pacific Division, members of Federal Union No. 23; machinists' helpers, members of Machinists' Helpers' Union No 12610, all in

the employ of the Canadian Pacific Railway Company. It was estimated by the applicants that the number of persons affected was 1,770 directly and 1,600 indirectly.

The nature and cause of dispute were set forth in the application as follows:—

> "On April 1st instant, Canadian Pacific Railway Company served notice of its intention to cancel on May 1st prox., the agreements existing between it and the employees in its mechanical department on Western lines, the said employees being organized according to the different trades represented by them as hereinbefore stated. In effect, the said notice provided for (i) contemplated reduction by Company of wages on and after May 1st. This is borne out by the fact that a number of employees affected by said notice have since received further notice of reduction in wages to take effect May 1st; (ii) cancellation of articles covering trade protection; (iii) cancellation of articles covering rights of committees of employees to meet Company's officers on behalf of men; (iv) removal of restrictions on number of apprentices, and the cancellation of clauses covering advancement of apprentices. The employees object to cancellation of existing agreements and contend that such agreements should continue to remain in force."

The employees stated that the action of the Company in giving such notice constituted an attempt on its part to deal with sections of particular trades at different times, and is intended to weaken, and has the effect of weakening unfairly, the position of the employees in their negotiations with the Company. The employees further claimed that it was the intention of the Company to cancel existing agreements on Eastern lines as soon as differences on Western lines were settled. The employees maintained also that agreements on both Eastern and Western lines should be considered and settled at one and the same time.

Notice was given to the Company on behalf of employees, members of International Association of Machinists and Brotherhood of Boilermakers and Iron Shipbuilders of America, of their desire to amend at the present time existing agreements on Eastern lines, because they believed, they so said, that it would be only a short time until the Company asked for such amendment.

The said employees, machinists and boilermakers each have one organization covering employees on Company's entire system, all of whom expressed their intention of ceasing work in the event of the Eastern agreements not being considered with, and at the same time as Western agreements, or in the event of differences *re* agreements on Western lines not being satisfactorily adjusted.

The parties signatory to the application were the following, namely:—

W. McFarlane, President District No. 30, Boilermakers and Iron Shipbuilders of America; William Henry, Secretary-Treasurer District No. 30, Brotherhood of Boilermakers and Iron Shipbuilders; Bell Hardy, President, and James H. McVety, Secretary, District No. 34, International Association of Machinists; Osborne L. Wark, President, and William Mossop, Secretary, Iron Moulders' Union; William Marshall, Chairman, and Robert Anderson, Secretary, Blacksmiths' and Helpers' Committee; Thos. Gray, Chairman, and

James Moore, Secretary, Boilermakers' Helpers; Edward Taylor, Chairman, and John Chapman, Secretary, Federal Unions 12, 14 and 15; Bell Hardy and Jas. H. McVety, representing Federal Union No. 23 and Machinists' Helpers' Union 12610.

The Board was duly appointed, and the enquiry was commenced on May 18. Shortly afterwards, the question arose whether the investigation should include the Eastern as well as the Western lines. The chairman, after having allowed an argument on this point by counsel before the Board, decided that it was impossible to adjust the dispute of the Western lines without at the same time enquiring into conditions with relation to the Eastern lines, and the chairman so reported to the Minister. Mr. Fullerton thereupon withdrew from the Board, and Mr. Galt was appointed as above stated. The enquiry was resumed on June 3, and continued until July 8, the Board proceeding to Moosejaw, Sask., on June 22, to take evidence there, and returning and resuming sessions at Winnipeg on July 2.

The Department received from the applicants on June 8, a request that the original application might be amended by including within the scope of the Board's investigation the Western carmen, and this request being supported by the usual statutory declaration, was complied with.

The investigation was by much the longest and most exhaustive held under the Industrial Disputes Investigation Act, the Board hearing evidence freely on the various points brought before it, several of which were of a technical or complicated nature. The decision of the Board that the Eastern lines came within the scope of the investigation made the number of those directly or indirectly concerned in the dispute much larger than the original estimate, the increased number being placed at about eight thousand. Several important officials of the labour organizations concerned were present throughout the proceedings, as also were some leading officials of the Canadian Pacific, Western division.

The communications received from the Canadian Pacific with reference to the findings of the Board were as follows, being from representatives of the Western and Eastern managements respectively:—

FROM THE WESTERN DIVISION, C.P.R.

Winnipeg, July 24th, 1908.

(At Banff.)

F. A. ACLAND, ESQ.,
Secretary, Department of Labour,
Ottawa, Ont.

Dear Sir,—

I am in receipt of your letter of the 20th inst., enclosing majority and minority reports of the Conciliation Board, the majority report being, I assume, the report of the Board.

From the evidence submitted of facts as they existed prior to and at the time of the meeting of the Board, the Company expected a decision fully upholding the views and contentions of the Company. In so far as

the decision does not do so, it is not satisfactory to the Company, and although the Company still contends that the position it took and the views it held and contended for are in their entirety correct, nevertheless, for the purpose of assisting in carrying out the spirit of the Act, the Company will accept the decision of the Board.

I accordingly telegraphed you to-day as follows:—

"Your letter of 20th instant enclosing majority report of the Conciliation Board received. While such report does not find in favour of the Company a number of its well founded contentions, and is not to that extent satisfactory to the Company, nevertheless, to assist in carrying out the spirit of the Act, I accept that portion of the decision relating to matters on Western lines, and will confirm by letter."

This I now beg to confirm.

Yours truly,

(Sgd.) W. WHYTE,
Second Vice-President.

FROM THE EASTERN DIVISION, C.P.R.

Canadian Pacific Railway Co.,
Eastern Lines,
Office of the General Manager,

Montreal, July 29th, 1908.

F. A. ACLAND, ESQ.,
Acting Deputy Minister of Labour and Acting Registrar of Boards of Conciliation and Investigation,
Ottawa, Ont.

Sir,—

In the matter of the Industrial Disputes Investigation Act, 1907, and in the matter of certain differences between the Canadian Pacific Railway Company and Employees of its Mechanical Departments.

Adverting to the report to the Honourable the Minister of Labour of the Board of Conciliation and Investigation established for the adjustment of differences between the Canadian Pacific Railway Company and certain branches of its mechanical departments forwarded with your letter on the 20th inst., and acknowledged by Mr. Beatty on the 21st inst., I beg to advise you that under all the circumstances, and with a view to complying with the spirit of the Act, this Company is prepared to accept the recommendation of the majority of the Board so far as these recommendations are applicable to the Company's Eastern lines.

You have already received from Mr. Wm. Whyte, this Company's second Vice-President at Winnipeg, an intimation that the report of the Board will be accepted by him on behalf of the Company's Western lines, and while we consider that the Company's contentions have not in some

respects been given full consideration by the members of the Board, we are prepared to accept it in toto in order that the work of the Board may not be rendered nugatory and the object of the Act thereby defeated.

We are also prepared to accept the suggestion of the Board that its recommendations be given effect to as and from the first of August prox.

I have the honour to be, Sir,
Your obedient servant,

(Sgd.) J. W. LEONARD,
General Manager.

FROM THE EMPLOYEES.

The Department received, on July 31, the following telegram on behalf of the employees:—

"Winnipeg, Man., 31st July, 1908.

"REGISTRAR BOARDS OF CONCILIATION AND INVESTIGATION, DEPT. LABOUR,
"Ottawa, Ont.

"Findings of Arbitration Board on C.P.R. disputes not acceptable to employees on either Eastern or Western lines."

"THOS. J. MURRAY."

On August 5, a strike on the part of the employees affecting about 5,000, and extending throughout the Canadian Pacific Railway system was commenced and continued during the months of August and September. On October 5, the following telegram from the representative of the employees was received by the Minister of Labour:—

"Winnipeg, October 4, 1908.

"MINISTER OF LABOUR,
"Ottawa.

"Employees of Canadian Pacific Railway have decided to accept award of Conciliation Board.

"(Signed) BELL HARDY."

The following message was sent in reply, and a copy of the message received on behalf of the employees was immediately telegraphed to the employing Company:—

"Ottawa, October 5, 1908.

"BELL HARDY,
"Winnipeg, Man.

"I am directed to acknowledge your telegram to Minister stating employees of Canadian Pacific Railway have decided to accept award of Conciliation Board and to express Minister's satisfaction that the dispute between the Company and its employees has terminated.

"(Signed) F. A. ACLAND,
"Acting Deputy Minister of Labour."

In a circular letter, issued under date of October 5 from Winnipeg, Man., from the headquarters of the joint committee representing all trades in the mechanical and car departments, and which had had charge of the strike, the same being signed by Mr. Bell Hardy, Chairman, Mr. J. H. McVety, Secretary-Treasurer, and other members of the Committee, the strike was ended by an arrangement between the Company and the Committee on the following basis, namely:—

"1. Men to advise the Department of Labour of the acceptance of the terms of the award;

"2. Strike to be called off East and West.

"3. Company to take all reasonable means to find employment for the strikers and to take measures to prevent any discrimination."

It is understood that the striking employees returned to work immediately at various points along the system, so far as the Company was able to find positions for them, and that when the period covered by the findings of the Board was completed on May 1, 1909, that an agreement was concluded by the mutual consent of the parties affected in relation to the wages and conditions of employment during the ensuing year.

REPORT OF THE BOARD.

The text of the report of the Board, signed by Messrs. P. A. MacDonald, Chairman, and G. F. Galt, is as follows:—

In the matter of the Industrial Disputes Investigation Act and certain of the employees of the Canadian Pacific Railway Company.

We, the members of the Board of Conciliation appointed to inquire into this matter, beg to report as follows:

Following the interim report* of the Board, as originally constituted, Mr. G. F. Galt having been appointed by the Honourable the Minister of Labour under Section 48 of the Act, to fill the vacancy caused by the withdrawal of Mr. C. P. Fullerton, the Board, as at present constituted, met on the third day of June, 1908, and on the fourth day of June, 1908, began the taking of evidence at Winnipeg upon the various questions before them.

On the twenty-second day of June the Board proceeded to Moose Jaw, Saskatchewan, to hear evidence there, returning and resuming its sittings at Winnipeg on the second day of July, the evidence being finally concluded on the eighth day of July.

After further negotiation and discussion, the Board is enabled to find as follows:—

The dispute in question arose from the action of the Canadian Pacific Railway Company notifying its employees in the mechanical department on the Western Division of its road, of the termination of certain agreements, which were then in force, and which fully embraced the relations between the Company and these particular employees.

In substitution therefor, the Company presented a set of Rules for the government of its employees in the several trades.

* The reference is to a communication from the Chairman to the Department, under date of May 21st, setting forth the circumstances relating to the retirement from the Board of Mr. Fullerton.

The differences between the agreements in force and the rules proposed are as follows:—

1. Rule as to the definition of the machinsts and boilermakers.
2. Rule as to the method of dealing with grievances.
3. Rule as to the proportion of apprentices to journeymen in each trade.
4. Rule as to the method to be employed for reducing time in shops, where a reduction in the amount of work to be done necessitates either the cutting down of the staff, or the shortening of the hours of labour.
5. Rule as to the make-up of the crews required in cases of wrecks.
6. Rule as to the hours of labour in roundhouses.
7. Rule regarding the duties of helpers to machinists.

Taking the questions in the above order, the Board finds:—

1. That the definition of the Machinsts' Trade should be altered by eliminating the clause, "Drill presses, where a boring or facing tool is required, shall be operated on such work by machinists or apprentices."

2. For the old definition of a boilermaker, the Company submit the following:—

First-class Boilermakers to do testing, laying-out, fitting-up and patching.
Second-class Boilermakers to do rivetting, caulking, stay-bolting and tender work.
Tubers, front end and back end.
Netting and ashpan men.

On this question the Board finds in favour of the Company. The result of this finding being to add a class, No. 2, to this trade, it becomes necessary to fix a rate therefor, and the Board accordingly fixes such a rate at forty cents per hour.

On the question of the disposition of grievances, the Company at first claimed that no committees should be recognized, but during the progress of the proceedings submitted that they would be satisfied to allow a clause similar to the provision in the agreement between the Engineers and the Company.

The Board finds that the men have abundantly proved that they are entitled to committee representation, and recommends the adoption of the following clause as effective, fair and just:—

"Employees having grievances, either specific or of a general nature, may present the case to his proper officer. If investigation is desired, the aggrieved party or another employee representing him, may, during work hours, arrange with the foreman for same. Investigation to be held within forty-eight hours after such application, and in case a satisfactory adjustment cannot be made, the case may be referred to the next higher officer of the Department until the manager is approached. If, after investigation, the employee is found blameless, he will be paid for all time lost."

In all the trades the proportion of apprentices to journeymen has been fixed at one to five, and one for the shop. The evidence adduced before us shows that in all trades, excepting that of the machinists, there is no injustice being worked on either side, because the number of applicants for positions does not exceed the ratio provided.

In the case of the machinists, the evidence is that a large number of applicants are prevented from learning this trade by reason of the limitation contained in this rule. Evidence was given to show that the work in the shops would not permit of a larger number of apprentices obtaining a proper knowledge of this trade. But this Board is of the opinion that the

proportion might be enlarged and made one to four, and one for the shop, without injuring the education of such apprentices, and that the necessity for skilled labour, and the desirability of retaining and developing the boys of the country, rather than importing foreign mechanics, are features which compel attention and justify the Board in favouring this increase.

The rule regarding the reduction of expenses, at present in force, provides for a reduction in time of the whole staff, all the men being satisfied to accept a proportionate reduction in their earnings rather than that any should be discharged.

The company wish to abolish this provision entirely, in order to permit of a reduction of the staff, but retaining the full day's work for those remaining in the employment.

This Board recommends that no change be made in this rule.

By rule in the Machinists' Schedule, it is provided that in case of wrecks, where it is necessary to disconnect or replace engines on track, two machinists shall accompany the wrecking crew. The company claim that this clause should be taken out, and on this point the Board find in favour of the company.

The company asked to have changed the rule with regard to the working hours as applied to roundhouses.

At present, work begins at 7 a.m. and ends at 17 o'clock. It is proposed that the men shall work in shifts, some beginning at 7 a.m., as at present, and ending at 17 o'clock, and others commencing at 8 a.m. and ending at 18 o'clock. The object of this change is to secure continued work in the roundhouses, with a diminution in overtime, a similar arrangement to apply to night men.

No good reason being advanced against this proposal, the Board recommends that this change be made.

The company ask that helpers to machinists should be allowed to use tools, under the direction of the machinists. The Board is not able to recommend this change.

It is the understanding of the Board that, except in so far as the present schedules are altered by the rulings as above, they shall continue in force.

At the time when this Board was constituted, the differences between the company and the employees on the Eastern division of the road as to the details of their schedules had not been presented for consideration. Subsequently, the differences having reached a stage where the provisions of the Act could be invoked, application was made to the Department to have the Board deal therewith, the Minister of Labour, by letter, referring the matter to the Board, if, in its discretion, the questions could properly be decided at the same time with those already under consideration.

The questions above reported upon are questions which are in dispute between the company and the men in the East equally with those on the Western division, and this Board recommends that its findings should apply to the persons interested in the dispute in the East.

One other question remains for disposition, affecting only the employees on the Eastern Division, that is, the question of the right to a nine-hour day, instead of a ten-hour day, with the rate of pay increased to make the earning capacity of the men under the nine-hour day equivalent to that under the ten-hour day provision.

The position of the Company as presented to us on this question is, that if the companies who are their competitors in business grant the nine-hour day in the East, that they will raise no objection to granting this application of their men.

This statement of the company coupled with the knowledge of the Board, that the present conditions of business in this country are not such as to justify employers in increasing wages, enables this Board to dispose of that question by refusing to recommend that the change asked for be allowed. But this Board desires to express its confidence that the Company will, as soon as they may, without injustice to themselves, change the working hours of their men from ten to nine hours a day, with a corresponding increase in pay, along the Eastern Division of its road.

The question of the method to be adopted in the framing of agreements between the Company and the men, whether the Eastern Division and the Western Division should be treated with at the same time, is one presented to the Board for consideration.

After thorough discussion, it appeared that the wishes of the men were to deal by single committee with all trades at the same time and place.

The company have explained that they have no objection to dealing with the men through one committee, but that on their part it will be necessary that this committee should meet with the officials of the company having to do with Western interest, at Winnipeg, and with the officials of the company having jurisdiction over its Eastern matters at Montreal.

The differences between the two parties to this reference, as above set forth, is so slight that the Board feels justified in holding that the schedules should be arranged by negotiations at Winnipeg and Montreal, to be consummated at a time agreed upon.

During the progress of the reference, a further application was received from the carmen, employees of the Company, to be included amongst the employees interested in these proceedings.

The question was referred by the Minister of Labour to the Board for their consideration, and the company agreeing thereto, it is considered that the Carmen are entitled to the benefit of the findings of the Board as above.

The Company, in the event of their position with regard to the abolition of the flat rate not being upheld, claim a decision of this Board, that the flat rate should be reduced to the extent of two half cents per hour, and they have given evidence showing that the rate at present paid by the Company to their employees is higher than men outside the service of the Company are able to obtain.

However, in the answer of the company to the Registrar, it is stated that under the sliding scale proposed, approximately ninety-five per cent. of the employees would receive the same wages as they are now receiving.

The Board, therefore, does not feel called upon to give any recommendation for a reduction in rates.

It is recommended that the settlement should commence on the First day of August A.D. 1908, and should continue until the First day of May A.D. 1909.

(Sgd.) P. A. Macdonald,
Chairman.

(Sgd.) G. F. Galt,
Arbitrator.

Dated at Winnipeg, in the Province of Manitoba, this Sixteenth day of July, A.D. 1908.

THE MINORITY REPORT.

The text of the minority report, signed by Mr. James Somerville, is as follows:—

Minority report as to the finding of the Board of Conciliation appointed to investigate the differences existing between the Canadian Pacific Railway Company and certain of its employees.

I, James Somerville, being unable to agree to the findings of the Board as submitted to the Department, beg to report as follows:—

1. (*a*). Taking the questions in the order set down in the report, I submit that: The operation of a boring bar in boring and turning on any kind of a machine where sizing is to be done being recognized generally as machinists' work, no good purpose can be served by eliminating the specific clause. The evidence of the company has not shown any great advantage to be gained, while on the other hand, unnecessary disputes may arise through the change.

1. (*b*). There is no justification in fact for the grading of boilermakers to what is termed class No. 2. The evidence before the Board all goes to show that in general practice a boilermaker is a boilermaker, competent to do any part of boilerwork, although in some instances the work is classified for the purpose of increasing the output. In such instances the evidence showed overwhelmingly that a flat rate prevailed in railway service without distinction as to what grade of work a boilermaker might be doing.

The classification proposed tends to increasing the number of what is termed "Specialists"—men with a knowledge of only part of a trade—and a corresponding decrease in the number of allround mechanics. It places in the hands of foremen as powerful a weapon as the "Sliding Scale" and may be used just as unscrupulously.

The Board finds against the sliding scale and against a reduction in wages, but the introduction of this classification effects both, and is therefore misleading to the public.

For instance:—

Taking the evidence of the company's witnesses and Typewritten Exhibits, 19 Boilermakers out of the 36 employed in the Winnipeg shops, over 50 per cent., are reduced 3½ cents per hour immediately.

Actual practice under the proposed classification reduces the number of what is termed First Class Boilermakers to 8 in the Winnipeg shops, which means that at least 70 per cent. of the total employed can be reduced to the Second Class with a 3½ cents per hour cut in wages.

The evidence of the company went to prove that not more than 4 of the First Class will be recognized in outside shops such as Moose Jaw and Fort William.

At this ratio 22 out of the 30 men employed between Fort William and Broadview in the boiler trade, or over 70 per cent., are cut 3½ cents per hour.

Between Broadview and Kamloops, of the 52 men employed, 38 or 70 per cent. are cut 5½ cents per hour.

Kamloops to Vancouver, where 11 men are at work, 7 or approximately 70 per cent. are reduced 4½ cents per hour.

The same classification carried into effect on the Eastern Lines as recommended by the Board, means a sweeping reduction among the boilermakers there.

The principle once admitted can be carried into any and all trades, destroying the men's earning powers through the lessening of the skill required to do a particular part of the boilerwork or a single part of what goes to make up what is recognized as a skilled trade. The allround workman so much in demand at the present time will pass away entirely as he becomes less a man and more of a machine.

The finding of the Board in this respect is a contradiction to other findings in the report—absolutely unfair and misleading.

My report is against any change in the definition of a boilermaker.

2. Adjustment of grievances:

I submit the following as fair and equitable:—

Employees having grievances, either specific or of a general nature, may present his case to the proper officer. If investigation is desired, the aggrieved party or the chairman of the Shop Committee, may, during shop hours, arrange with the foreman for a meeting with the Shop Committee. If immediate investigation is not desirable, the foreman will remove as far as possible the cause for dispute, pending the investigation, which must be held within 24 hours after such application. If a satisfactory adjustment cannot be made, the case may be appealed to the highest officer.

If, after an investigation, a man is found to have been unjustly discharged or suspended, he shall be reinstated and paid for time lost.

In connection with this article, there is one subject upon which the Board is silent, and which in my judgment should be commented upon in no measured terms.

When a grievance or dispute arises between a foreman and an employee under his charge, it is the practice for the foreman to first tell his story to his superior, who afterwards hears what the aggrieved or committee has to say. The foreman is not called upon to face the accused, or accuser, as the case may be. The investigation thus becomes a farce.

Instances were given before the Board of investigation being refused in order to protect the foreman from exposure.

This condition has continued to such a length that evidence taken before the Board under oath charging a foreman with falsely maligning a man and actually tampering with his work for the purpose of discrediting him as a mechanic, is of no moment. That he should boast of the company upholding this nefarious practice is a question not worthy of contradiction. That a master mechanic should repudiate an undertaking given over his signature, in a statement to the men, and then make a directly contradictory one to the Board under oath, is of so little consequence to those higher in authority that relationships continue unchanged.

Nothing worthy of refutation was the reply of the company's representative; nothing of moment.

If a proper relationship is to be established between the men and the company, this condition will have to be changed, and the evidence presented to the Board places the onus on the company.

3. In the apportioning of the number of apprentices to the trades as one to four, the Board undertakes to upset offhand a general rule adopted throughout the North American Continent in 1898, and recognized wherever an agreement is in existence with the trades to-day.

If the question was one of first principles—whether it is right to place any limitation or not—then I could understand the attitude assumed by the Board, but I cannot concur in a finding arrived at without data or evidence. I submit the Board is not competent to judge of the fairness or unfairness of one to four or one to five, granted there should be any limitation.

6. Changing of working hours in roundhouses:—

While the system of lapping of hours does not commend itself, a trial of a few months will prove its effect or ineffectiveness as an eliminator of overtime, and without favouring the principle, I recommend that it be put in effect during the life of the proposed agreement.

Life of proposed agreement:—

I favour the usual 30 day clause for annulment, but if a longer period is desirable in the public interest, one year from date of acceptance would be reasonable.

On the other questions before the Board I am in accord with its findings, except on the one schedule for the system proposition, and the application of the Eastern men.

No evidence has been taken on either question, and the action of the company in holding out a compromise at this time is to my mind based on the principle of "settle out of Court before Judgment is rendered," and its acceptance by the Board prevents further exposure and a strengthening of the men's contention.

The Board in my opinion is not justified in refusing evidence on these two important questions, for the only justification possible is in the strong opposition advanced by the company to the procedure.

The men on the Eastern have as much right to having their conditions investigated as the men in the West, and in this respect I dissent from the finding of the Board.

Respectfully submitted,

(Sgd.) JAS. SOMERVILLE.

VII.—APPLICATION FROM EMPLOYEES OF THE STANDARD COAL COMPANY, EDMONTON, ALTA. — BOARD ESTABLISHED. — AGREEMENT CONCLUDED.

Application received—May 2, 1908.
Parties concerned—Standard Coal Company and employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—20.
Date of constitution of Board—June 19, 1908.
Membership of Board—His Honour Judge Taylor, Edmonton, Alta., Chairman, appointed in the absence of a joint recommendation from the other members of the Board; Mr. Frank B. Smith, Edmonton, Alta., appointed on the recommendation of the Company; Mr. F. H. Sherman, Taber, Alta., appointed on the recommendation of the employees.
Report received—July 22, 1908.
Result of enquiry—The Company had previously made an agreement individually with the employees; strike averted.

The application in this case called for "a change of wage allowance, or remuneration of employees or the price paid or to be paid in respect of employment, and a change generally of the conditions surrounding their work in and about the mine." The Company in its statement in reply urged that the mine officials and the employees had several times during the preceding two months tried to frame a new schedule of wages, but had not been able to reach an agreement for the reason that under the prevailing rates at coal mines in the district, the Company was unable to compete in the market and maintain its present contracts at a living profit. The Company claimed also that there had been no complaints as to the conditions surrounding the workmen in the mine, and that a number of men had notified the Company of their withdrawal from the Union, being dissatisfied with union methods. The Board was then duly established as above stated. The report was unanimous but represented that when the Board met the employing Company submitted an agreement which had been made with the men individually, that it had in consequence been considered inexpedient to call for evidence, and that the Board had, therefore, no recommendations to make. The Department was given to understand that in the meantime work proceeded on the lines of the agreement.

REPORT OF BOARD.

The text of the report presented by the Board is as follows:—

Edmonton, Alta., July 11, 1908.

Sir:—

In the matter of the Industrial Disputes Investigation Act, 1907, and in the matter of certain differences between the Standard Coal Company of Edmonton and its employees.

We have the honour to inform you that the Board as constituted met and organized this forenoon, and had an informal conversation over the matter.

In the afternoon the Board met with representatives of the Company and the employees. The Company submitted an agreement made with the men individually, and the Board, after consultation and after hearing what was alleged by both parties, decided that it would not be expedient to call evidence under the circumstances.

The Board therefore have no recommendations to make in the matter.

We have the honour to be, Sir,

Your obedient servants,

(Sgd.) HEDLEY C. TAYLOR,

F. H. SHERMAN,

FRANK B. SMITH.

THE HONOURABLE THE MINISTER OF LABOUR,
Ottawa, Ont.

VIII.—APPLICATION FROM EMPLOYEES OF THE OTTAWA ELECTRIC RAILWAY COMPANY, OF OTTAWA, ONT.—BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—May 8, 1908.
Applicants—Employees.
Nature of industry concerned—Street railway.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—256.
Date of constitution of Board—May 22, 1908.
Membership of Board—Professor Adam Shortt, Kingston, Ont., Chairman, appointed on the joint recommendation of the other members of the Board; Mr. Geo. F. Henderson, K.C., Ottawa, appointed on the recommendation of the Company; Mr. J. G. O'Donoghue, Toronto, Ont., appointed on the recommendation of the employees.
Report received—June 15, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

The application for the establishment of this Board was accompanied by a memorandum of certain terms and conditions which the employees had submitted to the management of the Company and which the latter had refused to accept. This memorandum proposed:—

1. That the wage rate of conductors and motormen during the period of this agreement shall be at the following rates:—

First year men, 22 cents per hour on week days, and 24 cents per hour on Sundays.

Second year men and over, 23 cents per hour on week days, and 25 cents per hour on Sundays.

2. That the hours of labour will be as at present, 10 hours, constituting a day's work, or as near 10 hours as the schedule of runs will permit.

3. The Company will give, free of cost, to conductors and motormen who have been in the service for a period of one year and upwards, two uniforms per year, a winter and a summer one; and shall pay one-half of the cost of uniforms for first year men.

4. The Company agrees not to call on any conductor or motorman to perform extra work in excess of their regular scheduled day's work of 10 hours, save in cases of absolute necessity.

5. The Company will meet and treat with a duly authorized committee of the Division on all grievances or disputes which may arise from time to time between the Company and the Division or any member thereof.

6. The Company agrees not to discriminate against any employee by reason of his being a member of Division No. 279.

7. This agreement and all provisions therein contained, shall expire on the first day of May, 1909.

The Board met on June 2, and an agreement was concluded under date of June 6. The settlement was based on an increase of one cent per hour on the wage scale, being an increase of ten cents per day for the standard day's work, and involving an increased annual expenditure for the Company of $8,000, while a substantial benefit accrued to the employees of the second, third and fourth years, in having the whole instead of half the cost of their uniforms provided by the Company. Some minor changes in working conditions were also agreed on. The agreement was signed for the Company by Mr. J. E. Hutcheson, Supt., and for the men by Messrs. M. Blanchfield and E. Parks.

CHAIRMAN'S LETTER.

The following covering letter from the chairman accompanied the agreement received in the Department as the outcome of the deliberations of the Board:—

Queen's University, Kingston, Ont.

June 10, 1908.

Hon. Rodolphe Lemieux,
Minister of Labour,
Ottawa, Ont.

Dear Sir,—

I am pleased to be able to report that an amicable settlement has been reached in the case of the dispute between the Ottawa Street Railway Company and the motormen and conductors in its service. The settlement takes the form of a new schedule of rates of pay and conditions of employment issued by the company and accepted by the employees. A copy of the schedule duly signed accompanies this report.

The Board of Conciliation was composed of Mr. Geo. F. Henderson, K.C., nominated by the Company; Mr. J. G. O'Donoghue, nominated by the employees, and Professor Adam Shortt, nominated by the foregoing members.

After inspecting the chief lines of the street railway system, the Board met on Tuesday, June 2, at the Board of Trade rooms in the city of Ottawa. At the sittings of the board the Company was represented by Mr. J. E. Hutcheson and Mr. J. D. Fraser, while the employees were represented by Mr. Magnus Sinclair and a committee of six representatives from the motormen and conductors.

The employees asked for certain alterations in the working conditions and an increase in wages of 4½ cents per hour. It was claimed on behalf of the Company, that under existing conditions there was no justification for a change in the working conditions or an increase in wages.

From observations made by the Board, and from evidence brought forward at the sittings, it was evident that the Street Railway Company took much interest in its men and provided for their comfort and convenience in

a very generous manner; that, in consequence, it had an exceptionally capable and well set up body of men, who provided an excellent public service. The men claimed, however, that the high cost of living rendered it difficult for many of them at least to meet their requirements upon their present incomes. The Company in reply pointed to the rates of pay and conditions of employment in similar kinds of work. Considerable evidence bearing on the points under consideration was presented on both sides, and was discussed between the Board and the representatives of the parties. A few alterations in working conditions were proposed and agreed to as the hearing proceeded. As regards wages, which was the chief feature to be dealt with, it was felt by the Board that, having regard to the present economic outlook and the unfavourable conditions of employment in other lines, wages almost nowhere advancing, but in several cases declining, no great advance could be expected.

After taking all things into consideration it was proposed by the chairman that an advance of one cent per hour on the present wage scale might be granted; being an increase of ten cents per day for the standard day's work, and involving for the Company an extra expenditure of about $8,000 per annum. Though not quite convinced of the justice of any advance, Mr. Thos. Ahearn, on behalf of the Company, finally agreed to the proposition in a very generous spirit, and it was afterwards accepted in good part by the representatives of the employees. The employees of the second, third, and fourth years received in addition a substantial benefit, in having the whole, instead of half of the cost of their uniforms provided by the company.

It was understood, as between the parties, that there should be no discrimination by either party for or against any employee of the Company because of his being or not being a member of an organization.

It is learned through their representatives that the employees are very well satisfied with the terms of the settlement.

Yours sincerely,

(Sgd.) ADAM SHORTT,
Chairman, Board of Conciliation

THE AGREEMENT.

The text of the agreement concluded before the Board is as follows:—

THE OTTAWA ELECTRIC RAILWAY COMPANY.

Conductors and Motormen.

Schedule of Wages in Effect June 1, 1908.

1st year's service:	18½c.	per hour for	week days.
	20½c.	"	Sundays.
2nd year's service:	19½c.	"	week days.
	21½c.	"	Sundays.
3rd year's service:	20½c.	"	week days.
	22½c.	"	Sundays.

Working Hours.

(a) The hours of labour for regular men will be as at present, ten hours constituting a day's work, or as near to ten hours as the schedule of runs will permit.

(b) The Company will not call on any conductor or motorman to perform extra work in excess of his regular schedule day's work of ten hours except in cases of necessity. Men will not be expected to work beyond the full day unless they are agreeable to do so.

Uniform Clothing.

(a) Clothing of conductors and motormen will consist as follows:
For Summer: Full suit, coat, vest and pants.
For Winter: Trousers every year; overcoat every second year.
All conductors and motormen must be so provided.

(b) The Company will pay full cost of such clothing for all men in the service for over one year, and half the cost of those in their first year.

(c) Uniform caps and badges will be supplied by the Company without charge.

As heretofore, the Company will, except in cases of personal dishonesty, meet and treat with individual employees or a committee of the employees on grievances or disputes which may arise from time to time between the Company and its employees.

(Sgd.) J. E. HUTCHESON,
Superintendent.

We accept the above:

(Sgd.) M. BLANCHARD,
For the Employees.

(Sgd.) E. PARKS.

(Sgd.) ADAM SHORTT,
Chairman.

(Sgd.) GEO. F. HENDERSON,

(Sgd.) J. G. O'DONOGHUE,
Board of Conciliation.

IX.—APPLICATION FROM EMPLOYEES OF THE NOVA SCOTIA STEEL AND COAL COMPANY, LIMITED, NORTH SYDNEY, N.S.—BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—May 12, 1908.
Parties concerned—Nova Scotia Steel and Coal Company, Limited, and its employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—1,750.
Date of constitution of Board—June 19, 1908.
Membership of Board—Professor Adam Shortt, Kingston, appointed on the joint recommendation of the other two members of the Board; Dr. David Allison, Sackville, N.B., appointed by the Minister of Labour in the absence of any recommendation from the Company; Mr. J. W. Maddin, Sydney, C.B., appointed on the recommendation of the employees.
Report received—August 1, 1908.
Result of enquiry—Differences amicably arranged; strike averted.

It was stated in this application that in the month of December, 1907, the employees of the Nova Scotia Steel and Coal Company, members of Drummond, Roberts, Pretoria, and Port Cabot lodges of the Provincial Workmen's Association, employed in the Company's mines at Sydney Mines, North Sydney Mines, and Florence, Cape Breton, had applied to the Company for an increase of 15% for all day labourers and mechanics, for work in or about these collieries. The increase asked for labourers and mechanics was to come into effect on May 1, 1908. These increases were demanded because of the alleged increased cost of living. The early proceedings in the matter were delayed by the absence from the country of Mr. Thos. Cantley, General Manager, and the desire of the Company that action should not be taken pending Mr. Cantley's return. Since the slight delay in proceedings incurred in granting this request appeared to afford a better prospect of conciliation, Mr. Cantley's return was awaited.

ATTITUDE OF THE COMPANY.

A statement in reply to the application was received by the Department on June 8. The effect of the reply was that the wages paid by the Company, were as high on the average, as those of any similar collieries in Nova Scotia and that many employees were better paid than those engaged in similar work elsewhere; also that the returns on the capital invested in the collieries had

for some years been entirely inadequate and did not warrant any increase at the present time in the cost of production. The Company also made the point that owing to the fact that mining operations had been carried on for the extended period of 75 years at Sydney, there were many old men employed in the mines and the cost of coal cutting was materially increased because these old men could not produce as much as the ordinary worker. The Company further dwelt on the depressed condition of the foreign coal trade which it was said increased the competition that confronted the Company in Quebec, its largest market, and on the greatly depressed condition of the iron and steel trade of Canada which was further adversely affected by the high price of fuel, and the Company being concerned extensively in the steel industry as well as coal mining was compelled to take these conditions into account. The statement then set forth at length the earnings of the men and discussed the conditions of the respective collieries. The amount contemplated by the various demands for increases would be not less, it was argued, than $114,317, and if, as it would be natural to expect, equal increases were made to similar classes of labour in other industrial concerns controlled by the Company, the further sum of $48,900 would be involved, a total of $163,217 per annum. The statement concluded with the comment:—"The amount involved in this demand is so great, and as an unfavorable decision of a Conciliation Board would mean the absolute failure of the Company's coal mining operations, the executive of this Company feel that they would not be performing their duty to the shareholders of the Company were they, the responsible and legal guardians, to surrender to any other hands the settlement of a question of such vital importance." The enquiry extended over several days and was preceded and followed by conciliatory work on the part of the chairman or of the Board collectively.

ACKNOWLEDGMENT FROM THE COMPANY.

The Department formally forwarded copies of the signed agreement to the respective parties to the dispute and received in acknowledgement on behalf of the Company a letter from Mr. Thomas Cantley, General Manager, under date of August 25, from which the following extract is taken:—

> "We now wish to take this opportunity of expressing our appreciation of the very painstaking, able and courteous manner in which the Board carried on the protracted and difficult negotiations leading up to the arrangement arrived at on August first; and we wish particularly to give expression to our appreciation for the very able way in which the chairman presided over the deliberations of the Board, and the patience which he and his colleagues exhibited all through the examination of witnesses, and more particularly the conciliatory work which both the chairman and Mr. Maddin took up after the closing of the presentation of each side of the case by the representatives of the employees of the Company."

The text of the agreement and of the covering letter from the chairman of the Board is as follows:—

CHAIRMAN'S LETTER.

Queen's University,

Kingston, Ont., August 10, 1908.

HONOURABLE RODOLPHE LEMIEUX,
Minister of Labour,
Ottawa, Ont.

Dear Sir:—

I have the honour to report that a settlement has been arrived at in the matter of the dispute between the Nova Scotia Steel and Coal Company and its colliery employees. The agreement which is herewith enclosed takes the form of a statement of certain changes in the existing rates of pay, as made by the Company and accepted by its employees.

The Board appointed to deal with the case consisted of Mr. J. W. Maddin, nominated by the employees; Dr. David Allison, appointed by the Minister of Labour in default of a nomination by the Company, and Professor Adam Shortt, appointed on the joint recommendation of the other two members of the Board. The sittings of the Board took place at Sydney Mines, C.B., where the collieries of the Company are situated.

On July 10th, I had an interview with Mr. Thos. J. Brown, Superintendent of the N. S. Steel & Coal Company's mines, during which I learned that the Company, in accordance with their resolution not to appoint a member of the Board, did not propose to take any part in the proceedings before it, except in so far as they were formally required to give evidence and permit the inspection of their property. Realizing that if this resolution were adhered to there was little prospect of the Board being able to effect a settlement of the dispute, and that its labours would probably end in a barren report, I first endeavoured to remove the misapprehension as to the functions of the Board, which I felt was the basis of the attitude of the Company. The president of the Company, Mr. R. H. E. Harris, K.C., of Halifax, consented to come to Sydney to discuss the matter. As the result of a meeting between Mr. Harris, Mr. Brown and myself on Monday, July 13th, it was arranged that the Company would waive its objections and freely and unconditionally take part in the proceedings before the Board, and that Mr. Brown would conduct the case for the Company. Mr. Maddin and myself had already conferred with the committee appointed to conduct the case for the employees, and which consisted of Mr. J. Moffatt, Grand Secretary of the Provincial Workmen's Association, assisted by Messrs. J. B. McLachlan, Ed. Gallagher and Jas. Dorsay.

The Board opened the formal sittings on July 14th. After a general review of the matters in dispute, at the request of both parties, it was resolved to devote the two following days to an inspection of the underground working conditions in the three chief collieries. On Friday 17th, the Board resumed sittings for the taking of evidence, the case for the employees being first presented. As there were many grades of employment to be considered, both below and above ground, and at the shipping piers, and as the conditions of mining differed considerably in different mines and in different sections of the same mine, a long list of witnesses had to be heard in order to cover the various phases of the work.

The employees had asked that the wages of the day labourers and mechanics in and around the collieries and coal piers, should be increased fifteen per cent., also that the rates for mining coal in collieries Nos. 1 and 5 should be increased fifteen per cent. In the evidence brought forward they sought to show that the day labourers were inadequately paid, in view of the nature of the work to be done and the increased cost of living, also that owing to the difficulties of mining coal in many parts of collieries 1 and 5, due to the amount of timbering to be done, the amount of falling stone to be handled, and the wetness in certain sections of No. 5, the miners were unable to make adequate wages, notwithstanding that special rates were paid and special allowances made to meet some of these conditions.

The hearing of witnesses on behalf of the employees concluded on the 21st. On the 22nd, informal conferences were held with representatives of the men and the Company, to discuss various phases of the situation as a preliminary to the negotiations which were to follow. On the 23rd, Mr. Brown presented the Company's side of the case, accompanied by numerous returns taken from the Company's books, which were also produced before the Board that the statements might be verified or further information obtained. The members of the Board were also given access to confidential information as to the contracts and earnings of the Company. The contention of the company was that they were already paying high average wages, and that while mining in certain portions of their collieries was doubtless difficult, owing to the amount of timbering to be done, falling stone to be disposed of, hardness of coal, and excess of water, yet the Company was paying special rates in all these cases, while the extra outlay brought no corresponding return in coal. Attention was also drawn to the fact that in its present financial position under the existing conditions of the coal market and in view of the uncertainties of the future, the Company was not in a position to afford any increase in wages. At the same time evidence was furnished that in certain sections of the collieries, particularly in No. 3, very high wages were being made, and that if any change was to take place it must be in the nature of a readjustment of rates.

The formal presentation of evidence being completed, the Board carefully reviewed the whole situation and came to the conclusion that in view of the evidence presented, the Company was not in a position to materially increase its expenditure. At the same time it was considered very undesirable that there should exist, within the collieries of the same Company, such a wide difference in the earning powers of the miners. The average earnings in No. 1 colliery was $2.51 per day, while in No. 3 it was $4.50 per day, and these averages concealed much wider variations between the earnings of miners working equally long hours and with equal diligence. The Board quite recognized that a machine-runner should receive a higher rate of pay than a pick miner, yet they felt that some adjustment of rates was urgently required, alike in the interest of equity and a better feeling among the employees of the Company. The Board, therefore, resolved to recommend to the company and its employees that a reduction be made in the tonnage rates for certain grades of work in colliery No. 3, and that an increase be made in the wages of the day labourers now receiving $1.38 per day, while some additional provision should be made in for the less remunerative work in No. 1 colliery. No specific amount of reduction or increase was at first mentioned, as further details would depend upon the reception of the principle involved in the adjustment.

The Board itself having reached a quite unanimous opinion on the subject, on July 24th, negotiations with the miners and Company were

begun on this basis. Very naturally the proposal was most strenuously opposed by the highly paid miners in No. 3 colliery, who, though their lodge was included on the same basis as the other in the application to the Department for a Board, yet made the claim that they were not involved in the matter before the Board as they made no request for a change in conditions. The Board, however, had ruled from the first, that whatever was essential or pertinent to the ultimate settlement of the matters in dispute would be considered and dealt with by the Board. It was also pointed out that even if the case of the highly paid men in No. 3 colliery were ruled out on technical grounds, it would be open to the Company to apply for another Board on the matters ruled out, thereby involving further delay and expense, with lessening prospects of a settlement. The miners in collieries 1 and 5, while acknowledging the hardship of the great inequalities between the earnings of the miners, were naturally reluctant to appear as favouring a reduction in the rates of the highly paid miners in No. 3 that they might benefit, much preferring that their rates should approximate to those of No. 3, if this could be accomplished at the Company's expense. Obviously, however, the payment of miners' wages ranging from $3 to $6 and $7, and even occasionally to $10 and $11 per day would bankrupt the Company. While therefore, it appeared quite evident to the Board that, for several reasons, adjustment was the only admissible solution, it was plainly not to be accomplished without considerable difficulty, and only after much discussion and negotiation. It is unnecessary to detail all the conferences and negotiations which followed and which, considering the importance of the issues for hundreds of individuals, were conducted on the whole, with much moderation and with exceptional forbearance for the Board, the authors and advocates of an unpopular proposal.

When it came to the question of determining the exact amounts of the reductions on the one hand, and of the increases on the other, the Board proposed to the Company that, though not in a position to make a regular increase in wages, it might make a contribution in the interests of peace and the establishment of more equitable conditions throughout the collieries. After a consultation with the president of the Company, the proposal was met in a generous spirit. The amount to be saved by the proposed reductions was about $550 per month. To this the Company agreed to add another $300 per month, making the total about $850 per month, or something over $10,000 per annum. This was to be employed first, in increasing to $1.45 the wages of the day labourers then receiving $1.38; the balance to be devoted to increasing the allowances for falling stone in No. 1 colliery. The details of the distribution are set forth in the schedules attached to the accompanying agreement.

After being tentatively discussed by the representatives of the miners and the Company, the proposals were finally formulated in an award of the Board, which was submitted to both parties to be accepted or rejected as a whole. On July 31st, the employees voted on the matter in their lodges, Mr. Maddin and the chairman attending two of the chief meetings to explain and defend their award. The following morning the delegates from the lodges met in the Sub-Council of the P. W. A. to take final action, when by a majority of two to one, it was decided to accept the award of the Board. The Company having accepted also, the Board met the Miners' Committee and Mr. Brown, representing the Company, and the enclosed agreement was signed.

I desire to express my personal appreciation of the very admirable spirit in which the committee representing the miners faced a very trying situation. I have also to acknowledge the tactful and eminently fair manner in which Mr. T. J. Brown dealt with the situation as the represent-

ative of the Company. My colleague on the Board, Mr. J. W. Maddin, as the nominee of the miners, had a particularly difficult position to fill, where the award of the Board was so little attractive to some of the most influential of the miners. He not only maintained an independent and judicial attitude in arriving at the award of the Board, but accepted the fullest responsibility for the award and laboured most actively to secure its adoption.

Yours very sincerely,

(Sgd.) ADAM SHORTT,
Chairman.

THE AGREEMENT.

In accordance with the recommendations of the Board of Conciliation appointed to deal with the matters in dispute between the Nova Scotia Steel & Coal Company, Limited, and its colliery employees, the following changes are made in the existing conditions of employment and wage scale to take effect August 1, 1908.

The mining rates at Number 3 Colliery shall be as per Schedule "A" hereto attached.

The amount derived from the difference between Schedule "A" and the rates heretobefore existing, together with the sum of three hundred dollars per month to be contributed by the company shall be expended as follows: —

(*a*) The rate of pay for men heretobefore receiving $1.38 per day shall be increased seven cents per day. This class is defined in Schedule "B" hereto attached.

(*c*) The balance of the said sum shall be added to the existing scale paid for falling stone in number one mine as per Schedule "C" hereto attached.

In behalf of the Nova Scotia Steel & Coal Co., Ltd.

(Sgd.) THOS. BROWN,
Genl. Supt.

Accepted on behalf of the employees.
G. Sec., P.W.A.

(Sgd.) JOHN MOFFATT,
" ED. GALLAGHER,
" J. B. MCLACHLAN,
" JAMES DORSAY,
G. Chaplain.

(Sgd.) ADAM SHORTT,
Chairman.
" J. W. MADDIN,
" DAVID ALLISON,
Members of Board of Conciliation.

Sydney Mines, N.S., August 1, 1908.

MACHINE CUTTING PRICES AT No. 3 COLLIERY.

Heights.	Rooms. Levels per ton 2240 lbs.	Headways per ton 2240 lbs.	Deep per ton 2240 lbs.	Undercutting per ton 2240 lbs.	Shot-firing per ton 2240 lbs.	Leading per ton 2240 lbs.	Up to 200 ft. per ton 2240 lbs.	Pushing. 200' 300' per ton 2240 lbs.	Total @ 200 per ton 2240 lbs.	Rooms. 200' 300' per ton 2240 lbs.
5'0" to 4'7" (ince.)	52	53	75	16	14½	14½	3	4	48	49
4'6" to 4'1"	58½	59½	85	17½	16	14½	3	4	51	52
4'0" to 3'7"	65	66	103	20	18½	16	3	4	57½	58½
3'6" to 3'0"	77	78	114	23½	22	16	3	4	64½	65½

1. Pushing to be paid in Levels and Headings, if no engine or horse employed.
2. Rooms 40 cents each when considered necessary.
3. Rooms broken off back deeps to be 14 ft. wide increasing to 20 ft. wide at 45 ft. in, at which point a Crescent is to be driven 14' 0" wide, all of which will be paid for at Headway prices.
4. Crescents driven out of the ordinary and used for haulage purposes will be paid for at Headway prices.
5. Crescents driven to gain a Room will be paid for at Headway prices.

Sydney Mines, August 1st, 1908.

SCHEDULE "B".

No. 1 COLLIERY :		
87 men advanced from	$1.38 to 1.45	
2 " "	1.25 to 1.45	
2 " "	1.30 to 1.45	$169.75
No. 2 COLLIERY :		
9 men advanced from	$1.38 to 1.45	$ 15.75
No. 3 COLLIERY :		
106 men advanced from	$1.38 to 1.45	$185.50
No. 4 COLLIERY :		
13 men advanced from	$1.38 to 1.45	$ 22.75
No. 5 COLLIERY :		
1 man advanced from	$1.25 to 1.45	
1 man advanced from	1.38 to 1.45	$ 13.75
		$407.50

SCHEDULE "C"

Rates for falling stone in No. 1 Colliery, August 1st, 1908.

For stone	2-in.	in thickness	$.05¼	per man	per day.
"	3-in.	"	.07½	"	"
"	4-in.	"	.09¾	"	"
"	5-in.	"	.12¾	"	"
"	6-in.	"	.15	"	"
"	7-in.	"	.17½	"	"
"	8-in.	"	.20¼	"	"
"	9-in.	"	.22½	"	"

MEMO :

The amount reduced at No. 3 Colliery amounted approximately to $550.00, arrived at as follows :—

Rooms, 20,000 tons per month @ ½ct. (Machine runners)	$100.00
" " " @ 1ct. (Shot firers)	200.00
Narrow places, 5,000 tons per month @ 5 cts	250.00
	$550.00
To this is to be added the amount contributed by the Company	300.00
	$850.00

This was distributed as follows :—

As per Schedule "B"	$407.50	
50 % increase for falling stone in Nos. 1 and 5 Collieries	450.00	
		$850.00

X.—APPLICATION FROM STATION FREIGHT CLERKS OF THE INTERCOLONIAL RAILWAY OF CANADA AT ST. JOHN, N.B., AND HALIFAX, N.S.—COMMITTEE OF CONCILIATION, MEDIATION AND INVESTIGATION ESTABLISHED — NO CESSATION OF WORK.

Application received—May 14, 1908.
Parties concerned—Intercolonial Railway of Canada and Station Freight at St. John and Halifax.
Applicants—Employees.
Nature of industry concerned—Railway.
Nature of dispute—Wages and conditions of labour.
Date of constitution of Committee—September 8, 1908.
Membership of Committee—His Honour D. McGibbon, Brampton, County Judge of Peel, Chairman, appointed on the recommendation of the other members of the Committee; Mr. Henry Holgate, C.E., Montreal, appointed on the recommendation of the Department of Railways and Canals; Mr. R. E. Finn, M.P.P., Halifax, N.S., appointed on the recommendation of the employees. Mr. Finn subsequently withdrew from the Committee, and was replaced by Mr. J. G. O'Donoghue, of Toronto, Ont.
Report received—October 6, 1908.
Result of enquiry—Strike averted.

The application in this case was made under the terms of the Conciliation and Labour Act, and was referred by the Minister for adjustment to a Committee of Conciliation, Mediation and Investigation under section 5 of the Industrial Disputes Investigation Act, 1907, and section 13 of the Conciliation and Labour Act, relating to railway labour disputes. The application was for an increase of wages equivalent to 25 per cent. In correspondence with the Minister of Railways it had been also suggested by the applicants that a classification of the clerks should be made, which, they held, "would greatly inure to the benefit of the Railway, and promote a spirit of mutual interest, and further carry out the principle adopted by the Railway Department that efficiency and length of service should be the basis of promotion."

The report was signed by the three members of the Committee, and made recommendations for the settlement of the various points of difference which were afterwards transmitted to the parties concerned with a request that the latter should state whether the report was acceptable to them respectively as a basis of settlement of the differences referred for adjustment. A reply was received from the Deputy Minister of Railways and Canals under date of October 10, 1908, in which the Department of Railways and Canals expressed itself ready and willing to accept the findings of the Committee of Conciliation, Mediation and Investigation in this matter. On November 23, 1908, the Department of Labour was also advised from Halifax that the Station Freight Clerks of Halifax and St. John were prepared to accept the findings of the Committee.

TEXT OF THE FINDINGS OF THE COMMITTEE.

The following is the text of the findings of the Committee of Conciliation, Mediation and Investigation:—

Montreal, September 30th, 1908.

HON. RODOLPHE LEMIEUX,
Minister of Labour,
Ottawa, Ont.

In the matter of the Conciliation and Labour Act, R. S. C., 1906, Cap. 96, and in the matter of certain differences between the Intercolonial Railway of Canada and the Station Freight Clerks' Union, Branches Nos. 1 and 2, of Halifax and St. John.

Sir,—The Committee provided for under the Act was formed and completed on September 8th, and agreed to meet at Halifax on September 16th, and the three members of the Committee arrived at Halifax on the evening of the 15th.

On September 16th, the members of the Committee inspected the Intercolonial freight offices at Halifax, and familiarized themselves generally with the duties of the clerks.

At 2.15 p.m. on the same day, the Committee met in the Province Building, and there were present: Messrs. G. P. Monaghan and Alex. Gibb and several others representing the clerks, and Mr. David Pottinger and members of his staff representing the Intercolonial Railway.

The demands of the clerks were presented in writing, and were as follows:—

HALIFAX SCHEDULE.

DEEP WATER FREIGHT OFFICE.

No.	Title.	Salary asked for.
1	Chief Clerk	$100.00
1	Cashier	95.00
1	Clerk of Piers	95.00
1	Terminal Agent's Secretary	90.00
5	First-class clerks	85.00
10	Second-class clerks (1st year)	60.00
	(2nd year)	65.00
	(3rd year)	70.00
14	Third-class clerks (1st year)	40.00
	2nd year)	45.00
	(3rd year)	50.00

RICHMOND FREIGHT OFFICE.

No.	Title.	Salary asked for.
1	First-class clerk	$85.00
1	Second-class clerk (1st year)	60.00
	(2nd year)	65.00
	(3rd year)	70.00
1	Third-class clerk (1st year)	40.00
	(2nd year)	45.00
	(3rd year)	50.00

Schedule to apply from April 1st, 1907.

Seniority and efficiency to count in grading.

2. When a clerk is ordered back to work after hours or on Sundays or holidays by the officials, they are to be paid double time for all such extra time, and all clerical work in the office must be performed by clerks.

3. When a clerk is relieving a clerk of a senior position or class for one week or more he will receive the rate of pay of the clerk he is relieving.

4. That all clerks be allowed two weeks' vacation with pay, as at present, after one full year's service, and all statutory holidays be observed.

5. That eight hours constitute a working day, as formerly.

6. That all new clerks appointed to the office must enter as third class clerks and receive the minimum of pay of third class clerks for first year.

7. That all vacancies go to the next senior clerk, who is to hold the office for six months on probation, and if at the end of that time he has satisfied his superior officers of his ability to perform the work required of him he is to be confirmed in his position.

8. That no employee from any other Department be appointed to temporary or permanent vacancies over the heads of the regular clerks in the office.

9. Clerks will not be discriminated against for being members of the Railway Clerks' International Union, nor for serving on Boards of Adjustment representing clerks, and will be given leave-of-absence and furnished with free transportation for such purposes. They will also receive the same privileges for the purpose of attending their meetings on any part of the line, when it is possible to do so without inconvenience to the Railway.

10. No clerk will be suspended or dismissed without just cause, and any clerk charged with, suspended or discharged for an alleged fault, the same shall be fully specified in writing, giving full particulars two days prior to any investigation, and he will have a full and impartial hearing, and decision will be rendered within thirty days after filing his written request therefor with the proper official. If found blameless, as charged, he will be reinstated and will be paid for time lost at his stated rate of salary.

As this was the first intimation that the Intercolonial Railway officers had recived as to what the demands were nothing more than a preliminary discussion could follow, and it was decided to allow Mr. Pottinger proper time to consider these demands and to formulate a reply to them. Accordingly the Committee adjourned and met again on the follo ing day when Mr. Pottinger presented his reply.

It became evident at this stage that the case divided itself into two distinct parts.

1st. Relating to general questions of the relation between the Railway and its clerks and of appointments and organization.

2nd. As to wages or salaries of clerks.

In Mr. Pottinger's argument he stated definitely that the Intercolonial Railway could not increase the pay of the clerks nor adopt a schedule of salaries but upon other points the Intercolonial were disposed to be conciliatory.

The reasons for the Railway declining to agree to the increase of wages were fully set out by Mr. Pottinger and were such that the Committee felt that it would be desirable to take up the other matters in dispute, leaving the question of wages to be discussed with the Deputy Minister at a later date, and all parties assented to this procedure.

Accordingly and after a full discussion the following matters were agreed upon by all parties in the form as under:—

Your Committee are of opinion that it would make far greater harmony, and better efficiency, if a system of classification of clerks were introduced. Not only would the above results accrue, but there would then be an available scheme for promotion, which at the present time seems to be lacking, and which omission breeds discontent owing to the uncertainty of upward progress for efficient clerks who have by length of service and attention to the duties of their office earned the right to consideration in this regard. Just what system of classification should be introduced must necessarily be evolved by the officials of the Railway, who are more intimately familiar with the details of the business of the Intercolonial than your Committee can possibly be. The men involved must necessarily accept the classification determined upon, subject of course to the right which they possess of bringing to the attention of their

superiors in office any improvement in such classification, which to them may seem desirable in the best interests of the service.

Overtime:

Clerks duly called upon to work beyond the regular hours of their daily service should receive a *pro rata* allowance for such overtime. The same rule should apply to Sundays.

Holidays:

The two weeks vacation with pay should continue as at present.

Relieving:

When a clerk is relieving a clerk of a senior position or class, the relieving clerk should, after two weeks, receive the rate of pay of the clerk whom he relieves.

Length of Day:

Your Committee do not feel disposed at present to make any recommendation with respect to the number of hours that should constitute a day's work; the present day is practically one of eight and one-half hours.

Promotion:

Your Committee are further strongly of the opinion that, outside of the rare cases that arise where an exceptionally able outsider is brought into the service to fill some particular position requiring special knowledge and training, the principle of promotion of those already in the service should obtain, having due regard, of course, to efficiency and the requirements of the service.

Discrimination:

The men asked for the following clause: "Clerks will not be discriminated against for being members of the Railway Clerks' International Union, nor for serving on Boards of Adjustment representing clerks, and will be given leave-of-absence and be furnished with free transportation for such purposes. They will also receive the same privileges for the purpose of attending their meetings on any part of the line, when it is possible to do so without inconvenience to the Railway."

Mr. Pottinger stated that that was now the practice on the I.C.R., and that there was no objection to an employee belonging to a Trade Union. This being the case your Committee need deal no further with this particular point.

No clerk is to be suspended, or dismissed, without just cause. Any clerk charged with, suspended or discharged for, an alleged fault, the same shall be fully specified in writing, giving full particulars two days prior to any investigation, and he will have a full and impartial hearing, and decision will be rendered by the Railway's proper official within a reasonable time after the written request has been filed. If found blameless, as charged, he will be reinstated and will be paid for time lost at his stated rate of salary."

After reaching this conclusion the Committee adjourned to meet at Ottawa.

On September 28th the Committee met in the Railway Committee Room of the House of Commons and there were present Messrs. Monaghan and Gibb and Mr. M. J. Butler, Deputy Minister of Railways and Canals.

Mr. Butler laid his views before the Committee on the question of increase of salaries and these coincided with those expressed by Mr. Pottinger at Halifax, and further explained the inability of the Railway to increase their expenses owing to the fact that working expenses of the Railway were very largely in excess of revenue and no funds were available for any increase of expenses.

The Committee further considered the questions involved and now submit the following additional recommendations:—

The Committee after the investigation is of opinion that in the matter of wages the system that obtains of appointing from time to time new men at higher pay over the heads of men long in the service and probably more

capable of doing the work, is injurious to the service and unjust to the men. The remedy for this lies in reorganization, and the abolition of the existing system of appointment influenced by political patronage, which from the point of efficient working, we find ample evidence to condemn as applied to the Intercolonial Railway.

The present staff is greater than is necessary, and this is another element which discourages individual increases. If the aggregate amount paid now in salaries were divided among a staff equal simply to the requirements of the service, the men remaining could be better paid than they are now.

The re-arrangement of salaries could then be made on the basis of the value of the position and the work done, having regard of course, to what is paid for similar work elsewhere, and the local cost of living as compared with such comparative centres.

At the present time, the wages paid to those now presenting claims before us are not, owing to above reasons, what a fair consideration would justify. Under the reorganization hereby strongly recommended, it is more than probable that the adoption of increases of from 15% to 20% would not mean an appreciable addition to the operating expenses of the Intercolonial Railway, and would produce a more equitable schedule of compensation for the staff retained.

We summarize our further recommendations as follows:—

(1) Reorganization in order to adjust the number of employees to the actual requirements of the service.

(2) An increase as above suggested to the re-organized staff.

(Sgd.) D. McGibbon,
Chairman of Committee.

(Sgd.) John G. O'Donoghue,
Appointee of Clerks' Union.

(Sgd.) Henry Holgate,
Appointee of Intercolonial Railway.

XI.—APPLICATION FROM EMPLOYEES OF THE PORT HOOD, RICHMOND RAILWAY COAL COMPANY, LIMITED, OF PORT HOOD, N.S. —BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—May 18, 1908.
Parties concerned—Port Hood, Richmond Railway Coal Company, Limited, of Port Hood, N.S., and its employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—300.
Date of constitution of Board—June 8, 1908.
Membership of Board—His Honour Angus McGillivray, County Judge, Antigonish, N.S., appointed on the recommendation of the other members of the Board; Mr. G. S. Campbell, Halifax, N.S., appointed on the recommendation of the employers; Mr. James MacDonald, M.P.P., West Bay, N.S., appointed on the recommendation of the employees.
Report received—July 2, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

This dispute arose arose out of a demand made by the employees of the Port Hood Richmond Railway Coal Company of Port Hood, N.S., for a 15% increase of wages, effective from May 1, 1908. The Company refused the demand on the ground that business conditions did not permit of such an increase. The application set forth that the men "ceased work on May 1, but returned after four days, having entered into an agreement with the manager to place the matter before a Conciliation Board."

The report of the Board was signed by all three members and made recommendations for the settlement of the differences which the chairman, in a covering letter to the Minister, stated would, he believed, be found acceptable to the parties concerned. The Board met at Halifax, June 15 to 19 and June 25 to 27 and heard considerable evidence as to the state of the coal trade, the cost of living, and other matters believed to be pertinent to the dispute. The condition of the Company's colliery was also examined both on the surface and underground. The Board recommended no increase for miners, finding that the average rate earned in the colliery "now exceeds that of most other collieries in the Province." An increase amounting to 10 per cent. was recommended in the case of surface labourers, carpenters and hoisting engineers, and a smaller increase in the case of firemen. Under date of July 22, 1908, the Department was advised of the acceptance of this award by the employees.

REPORT OF BOARD.

The text of the report is as follows:—

In the matter of the Industrial Disputes Investigation Act 1907, and in the matter of certain differences between the Port Hood Richmond Railway Coal Company and Employees of the said Company.

On receiving notification of the establishment of a Board under the provision of the above Act and of the appointment of George S. Campbell recommended by the employers, of James MacDonald recommended by the employees, and of Angus McGillivray, as chairman, the latter after consultation with the other members fixed the time and place where the sittings of the Board were to be held, of which he duly notified the parties interested. The Board met on the 15th day of June, 1908, at Port Hood, the time and place fixed for its sittings, and continued till the 19th, during which time the members of the Board heard the statements of both parties to the dispute, and also the evidence of witnesses adduced on both sides. During this time they examined the condition of the Company's colliery both over and under ground. The members of the Board then adjourned until the 25th instant, on which day they met again and considered the statements, and testimony *viva voce* adduced before them, and the evidence on view. The representatives of the employees submitted their statements with a comparative list of groceries and their prices, from 1902 to 1907, the rate of wages of surface and underground men as now paid by the Dominion Coal Company of Cape Breton, and Miners' average daily pay in Springhill, Albion, Acadia, Drummond, Inverness, Sydney (Nos. 1 and 5) and Bridge Port (hand picked) Mines, in the Province of Nova Scotia. (The mine of the Company, party to this dispute, is also hand picked.) The representatives of the Company submitted schedules of colliery rates at Inverness, at Springhill, and at the Company's mine; and announced that the Company is willing to pay the same rate as other mines pay, taking into consideration relative conditions here as compared with other mines, but would resist a general increase of 15% " to bring the wage rate of the miner to the standard of miners throughout the Province," in view " of the present high cost of living, and the favourable condition of the coal trade," as claimed by the employees until proved that such ought to be paid. On this point we proceeded to take evidence.

Two questions were involved in this enquiry, namely (1) The question of wages; (2) Payment on tonnage of coal mined.

After the termination of our enquiry and before considering the evidence, the Board asked the representatives of the parties to confer with one another and find if they could come to an amicable settlement of their dispute. The representatives of the employees stated that they had no authority to come to any settlement but would leave the matters in dispute to the decision of the Board.

In view of the fact that the Company is getting its colliery on a fairly firm basis, and that the industry is one which promises to be established to afford continuous employment to the employees of the mine, and a general benefit to the people of the locality, the Board have decided to make only the following recommendations

(*a*) Surface labourers whose wages are up to $1.45 to receive $1.50 per day.
(*b*) Carpenters now receiving $1.75 per day to get an advance of 10 per cent.
(*c*) Hoisting engineers to receive a uniform rate of $2.20 per shift of 12 hours.
(*d*) Firemen to receive a uniform rate of $2.00 per shift of 12 hours.

The scale as to the above classes will, therefore, stand recommended:

1. Surface labourers now receiving $1.45 shall receive $1.50 per day.
2. Carpenters now receiving $1.75 shall receive $1.92 per day.
3. Hoisting engineers now receiving $2.00 shall receive $2.20 per day.
4. Firemen now receiving $1.92 shall receive $2.00 per day.

The Board considers that hoisting engineers performing a duty of great responsibility as to the safety of life and property should be rewarded according to the gravity of their duty, and that they be not required to attend to any other kind of work engaging their attention while men are in the mine. This is not intended to prevent the night engineer whose duties are comparatively light to attend to the dynamo as at present.

With reference to the claim of the miners for an increased rate the Board finds that considering the average rate already earned, which now exceeds that of most other collieries in the Province, they do not feel justified in recommending an increased rate under present conditions.

The above is earnestly recommended as a settlement of the dispute between the parties thereto.

(Sgd.) A. McGillivray,
Chairman.

" G. S. Campbell,

" James Macdonald,
Members of the Board.

Dated, Halifax, June 29th, 1908.

XII.—APPLICATION FROM RAILROAD TELEGRAPHERS EMPLOYED BY THE CANADIAN PACIFIC RAILWAY COMPANY—BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—May 29, 1908.
Parties concerned—Canadian Pacific Railway Company and railroad telegraphers in its employ.
Applicants—Employees.
Nature of industry concerned—Railways.
Nature of dispute—Alleged wrongful dismissal of an employee.
Number of employees affected—Directly 1, indirectly 1,605.
Date of constitution of Board—June 17, 1908.
Membership of Board—The Honourable Mr. Justice Fortin, Superior Court, Montreal, chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. Charles S. Campbell, K.C., Montreal, appointed on the recommendation of the Company; Mr. J. G. O'Donoghue, Toronto, appointed on the recommendation of the employees. Mr. O'Donoghue subsequently withdrew from the Board, finding himself unable to serve because of private engagements, and on the recommendation of the employees affected, Mr. W. T. J. Lee, Toronto, was appointed to the Board in his place.
Report received—September 26, 1908.
Result of inquiry—Agreement concluded before the Board; strike averted.

The matter of dispute in this case was set forth in the application as the alleged wrongful dismissal of Mr. A. E. Morrissette by the Company from its agency at Megantic, Quebec, on February 27, 1908. Various conferences, it was alleged, had taken place between the Company's officials and representative committees of the Order without avail. The statement submitted on behalf of the Company in reply to the application admitted the dismissal of Mr. Morrisette on the date named, but insisted that the dismissal was entirely justified in view of irregularities which had been committed by the person dismissed. The statement also set forth "that the Company reserved the right to deal with any failure of duties by any of its employees in accordance with the Company's rules and regulations, and in such manner as seems to its officers expedient in order to conserve good discipline and efficient service on its lines." It was also urged on behalf of the Company that in applying for a Board in connection with the dispute in question, an improper advantage was being taken of the provisions of the Act.

The investigation before the Board proceeded immediately, but a final conclusion was deferred for a considerable time, as set forth in the text of the report printed below. An amicable settlement, however, was finally reached

and Mr. Morrissette, the dismissed employee, was taken back into the service of the Company, the nature of his discipline being changed from dismissal to suspension for a stated period, while his reinstatement without prejudice was permitted. The case appears to have been one of particular difficulty of adjustment, and a settlement was finally effected only by the exercise of a special degree of tact and perseverance on the part of the Board, the chairman especially acting as a medium for negotiations between the parties concerned, entirely apart from the more formal proceedings of the Board. The findings of the Board were signed by the three members thereof, and a memorandum of settlement between the parties was signed by Mr. J. W. Leonard for the C.P.R., and Mr. G. D. Robertson for the Order of Railroad Telegraphers, also by the Honourable Mr. Justice Fortin as chairman of the Board.

REPORT OF BOARD.

The text of the findings of the Board and of the memorandum and statement is as follows:—

The Honourable Rodolphe Lemieux,
Minister of Labour,
Ottawa, Ont.

In the matter of the Industrial Disputes Investigation Act, and in the matter of The Canadian Pacific Railway Company and the Order of Railway Telegraphers—Morrissette's case

1. Meetings of the Board were held at Montreal and at Toronto, and written as well as verbal evidence was adduced by the parties from which the following facts appear:—

2. Mr. A. E. Morrissette, station agent at Megantic, P.Q., sent in, towards the end of the month of December, 1907, the official pay sheet for the station, upon which, in ordinary course, the month's wages at that station would have been paid. He showed thereon, as night car checker, one J. J. Sevigny, at the rate of $35.00 per month, and as call boy, one George Boiselle at $15.00 per month. He had, about the 14th December, advised District Superintendent Williams that Sevigny had resigned, effective December 14th, and he had recommended that George Boiselle be made night car checker at $35.00 and one A. Couture taken into the Company's service as call boy. Superintendent Williams had declined to authorize a salary of $35.00 per month for Boiselle, who was only sixteen years of age, and had suggested that a rate of $25.00 per month should be applied for. Mr. Morrissette states that he communicated this information to Boiselle, who answered in effect that he would "go back calling," that is, as call boy, before he would accept $25.00 a month. Mr. Morrissette states that he forwarded this answer to Superintendent Williams. The latter, however, does not admit having received it.

It appears that in order to get the work of the station done, Mr. Morrissette might have employed additional help, and in this way might, in the absence of contrary instructions, have bound the Company even to the extent of paying at the rate of $35.00 for Boiselle, or such help as he could get as a temporary measure, but he would have had to report the fact and he could not, without authority, put Boiselle on the pay sheet as being entitled to salary.

To Superintendent Williams, at the time he received the pay sheet, it appeared that Mr. Morrissette, by it, represented that Boiselle still occupied his old place as call boy, and that Sevigny, a man whom he had reported as having resigned, effective December 14th, was still in the Company's employ at the end of the month. Superintendent Williams thereupon asked for an immediate explanation, and on the 31st December, Mr. Morrissette wrote in reply the following letter:—

"Referring to the attached, I have exhausted all efforts to get anyone who cares for the job of Night Car Checker, and as Boiselle will not do the work for any less than $35.00 per month and being forced to use him until I can get relief I thought perhaps it was best to show him in Sevigny's name continuing as he will accept no less, it may be wrong to have done so. If you think best the following is the correct time of each man:

"J. J. Sevigny, 9-31 at $35.00 ..... $10.13
Geo. Boiselle, 22-31 at $35.00 ..... 24.87
Geo. Boiselle, C-B, 12-31 at $15.00 ..... 5.81
Alb. Couture, C-B, 19-31 at $15.00 ..... 9.19

"I had not got Couture down as he will drop out as soon as a Car Checker can be got in Sevigny's place and Boiselle resumes in his former place. (C-B)."

As this letter made the matter appear to Superintendent Williams the pay sheet had not correctly represented the actual condition of affairs at Megantic station, and had the payments called for by it been made, the pay issued for Sevigny would have had to be distributed in part to Boiselle, and Boiselle's pay in part to Couture, who did not appear as being in the Company's service at all. It also appeared that the instructions given by Superintendent Williams not to engage Boiselle at $35.00 a month had been in substance disregarded.

3. After consideration, Mr. Morrissette was, on the 17th of January, advised in connection with the entry on his December pay roll for time worked by Checker Boiselle in the name of his predecessor, Sevigny, that the General Superintendent had instructed District Superintendent Williams that this was an irregularity that required Morrissette's removal from the service, and that he was to be relieved as soon as possible, and that District Superintendent Williams would arrange to relieve him as soon as his successor was decided upon.

On the following day, January 18th, Mr, Morrissette demanded an investigation, and on the 26th January, an investigation was held at which Mr. Morrissette was accompanied by Messrs. Racicot and Rogers, two members of the Order of Telegraphers.

4. The parties being unable to agree, the present proceedings were begun.

The contention urged by the Telegraphers was that Mr. Morrissette had been discharged without cause. They contended that there had been no offence, but a mere error of judgment, which they treated as consisting of having written the letter of the 31st December, the statements of which they said might be erroneous, but they contended that the pay sheet was correct, claiming that Sevigny was not able to leave the Company's service without two weeks' notice, and must be considered as having continued therein until at least the 28th December, and his having been responsible for the duties of night car checker. And following the same line of reasoning, they claimed that Boiselle remained call boy, but was being helped by Couture.

On the other hand, the Company contended that the said Morrissette was dismissed from the company's service for certain irregularities in connection with his duties as agent for the Company, more particularly for employing, contrary to instructions, a car checker named Boiselle at a rate

of wages which the Company's superintendent had previously instructed could not be granted, and that in order to secure the increased wage to the said Boiselle, he had entered his name on the pay roll under the name of his predecessor in that position.

5. Having heard all the evidence, the Board first endeavoured to induce the Company to take Mr. Morrissette back into service, but this it was unwilling to do, claiming that the matter involved a question of discipline, a breach of positive instructions and the furnishing of information known by the employee to be incorrect.

The Board then endeavoured to see how far the Telegraphers were prepared to modify their position and after conferences with their representatives, it appeared that they would be satisfied with an arrangement by which Mr. Morrissette should be taken back into the Company's service on losing salary to date.

The Board then again communicated with the Railway Company, endeavouring to arrange a settlement on this basis but without success.

6. Conciliation having thus failed, it only remained for the Board to report on the facts established before them. Reports were then prepared, and were just about to be transmitted to you, when further efforts were renewed to bring the parties together, and these, after long and protracted negotiations, carried on unofficially, at times, through the chairman, an agreement was made by the parties, and that agreement is transmitted with the present report.

It was admitted, and we find this to be established, that Mr. Morrissette committed a breach of discipline in the way he acted as above; but, no doubt influenced by his excellent record of seventeen years' service in the Company's employ, the Company agreed to change the discipline from dismissal to suspension to 1st July last.

This being accepted brought proceedings to an end.

Montreal, this 24th day of September 1908.

(Sgd.) W. T. J. Lee,
" C. S. Campbell,
" Thos. Fortin,
Chairman.

Canadian Pacific Railway Co.,
Eastern Lines.

Montreal, Sept. 1st, 1908.

MEMORANDUM OF SETTLEMENT RE MORRISSETTE.

The Company to change his discipline from dismissal to suspension to July 1st, 1908, and to re-instate him as agent at Megantic without prejudice.

(Sgd.) J. W. Leonard,
For Can. Pac. Ry.

(Sgd.) G. D. Robertson,
For Telegraphers.

(Sgd.) Thomas Fortin,
Chairman.

XIII.—APPLICATION FROM EMPLOYEES OF THE MARITIME COAL, RAILWAY AND POWER COMPANY, LTD., CHIGNECTO, N.S.—BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—July 2, 1908.
Parties concerned—Maritime Coal, Railway and Power Company, Ltd., Chignecto, N.S., and its employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—200.
Date of constitution of Board—July 6, 1908.
Membership of Board—Rev. W. Charles Wilson, Springhill, N.S., Chairman, appointed on the joint recommendation of the other members of the Board; Mr. Brunswick B. Barnhill, Two Rivers, N.S., appointed on the recommendation of the Company; Mr. R. B. Murray, Springhill, N.S., appointed on the recommendation of the employees.
Report received—July 27, 1908.
Result of enquiry—Agreement concluded on all points for a period of two years from July 31, 1908; strike averted.

The application of Chignecto Lodge No. 54, Provincial Workmen's Association, for the establishment of this Board, set forth that the dispute arose out of a request on the part of the employees for a new agreement with respect to prices to be paid at the Chignecto mines and to other matters governing the relations between the Company and its operators which were submitted in the form of a memorandum attached to the operatives' application. The Company submitted a reply in which a counter proposition was made with respect to wages, and intimated a desire to discuss the general question of wages with a commission representing the Lodge. The Board met at Maccan, N.S., on July 14, at Chignecto Mines, N.S., on July 15, 16 and 17; and at Amherst, N.S., on July 23, 24 and 25.

Its report was unanimous and contains a complete new schedule of wages and working conditions. It was also stated in the report that an agreement had been arranged between the Company and its employees as to the majority of the points at issue, while on the other points the Board had unanimously reached a basis of agreement. Especial comment was also made in the findings on the conciliatory attitude of the parties concerned and the final clause of the report recommended that the agreement should continue in force for two years from July 31, 1908. An appendix to the report contained a written acceptance of the recommendations on the part of the employees, and a statement from

the Company that it would not agree to accept the decision "as from present indications it looks as though there must be a reduction in the cost of producing coal in this Province in the near future." In the meantime it was understood that operations in the Chignecto Mines proceeded on the basis recommended by the Board.

REPORT OF BOARD.

The text of the report of the Board is as follows:—

In the matter of the Industrial Disputes Investigation Act 1907, and in the matter of a dispute between Chignecto Lodge No. 54, Provincial Workmen's Association, Employees, and Maritime Coal, Railway and Power Company, Limited, Employers.

The Board composed of B. B. Barnhill, representing the employer, R. B. Murray, representing the employees, and Rev. W. Charles Wilson, chairman, met at Maccan on the morning of July 14th, at which time and place the members of the Board took the required oaths of office and the business of arranging the mode of procedure, and places and plans of meetings were decided on.

On the afternoon of the same day, the second sitting of the Board was held at Orange Hall, Chignecto Mines, and the evidence of several witnesses, was taken. Subsequent meetings, comprising two sessions each day, were held on the 15th, 16th and 17th of July at the same place. Adjournment was had on the evening of the 17th for the Board to reconvene at Amherst on the 23rd of July at 2.30 o'clock p.m. for perusing and weighing the evidence, in the endeavour to arrive at a satisfactory and unanimous decision, and for the further purpose of preparing a report on the matters submitted to them. On July 23rd and 24th two sessions of the Board were held each day in accomplishment of this purpose and a half day session was held on July 25th.

The nature of the case in dispute between the parties was in respect to a proposed agreement comprising 33 sections for prices to be paid at the Chignecto Colliery, and with respect to other matters governing the relations between the Company and the lodge and fully set out in the following schedule:—

No. 1. All the employees to become members of Chignecto Lodge, No. 54, P.W.A.

No. 2. No employees to be discharged unless the case is referred to Managing Committee of said Lodge.

No. 3. Company to send clean coal to its employees.

No. 4. Responsible man to take tallies off boxes.

No. 5. Houses to be kept in repair by Company and rent reduced.

No. 6. Number of bank hands arranged according to quantity of coal turned.

No. 7. All bank hands to cease work at 5 p.m., after that time to be paid extra.

No. 8. No boy allowed to perform a man's work.

No. 9. Company to keep a proper supply of water for use of tenants.

No. 10. All outside labourers and mechanics to be granted an advance of fifteen per cent. from the date hereof.

No. 11. In the event of closed lights being introduced into the mine, sufficient compensation to be allowed for such.

No. 12. Miners to be paid ten cents per prop, fifteen cents per boom,

five cents per yard, for laying roads in boards or long wall, sixty cents per butt, butts four feet square, forty-five cents per butt when bench is not taken up.

No. 13. All stone in excess of four inches to be paid at the rate of five cents per inch per lineal yard.

No. 14. All heads to be paid at the rate of $1.50 per yard up to 35 feet, over 35 feet, $2.00 per yard.

No. 15. Sufficient supply of tallies to be given each miner.

No. 16. No employee to be sent home who refuses to work at any other work than his own.

No. 17. That the "butty" system be abolished except when the men desire one.

No. 18. No work to be set by tender except balances.

No. 19. Two cents per box to be paid extra when boxes have to be teamed over 350 feet, over 450 feet 1 cent per box in addition for every 50 feet.

No. 20. Employees to be given a time sheet every fortnight.

No. 21. Docking system to continue as now in force.

No. 22. All coal to be paid at the rate of 70 cents per ton in tight work, 60 cents per ton long wall and pillar.

No. 23. Riding rakes to be put on 6.15 a.m., and all men to be given tickets as they come on bank in the morning, men to be at bottom of mine by 7 a.m. Riding rakes to be put on at 3.45 during the week, Saturdays at 3.30 p.m.

No. 24. When management know the night before that the following day is to be an idle one, whistle to blow at 9 p.m. which will be signal the mine will be idle the following day.

No. 25. The following days to be considered holidays, viz., Labor, Dominion, Victoria, and Christmas Day.

No. 26. Any special work between 12 Saturday night and 12 Sunday night to be paid at rate of time and a half.

No. 27. That a paper hang at tally house showing each day's coal, such paper to be hung up not later than the following morning.

No. 28. Company to supply the following tools to miners, picks, drills, shovels, stemmers and needles; worn out or broken tools when returned to store to be replaced free of charge, and picks, drills and augers to be sharpened by Company free of charge.

No. 29. Tools maliciously damaged or lost by workmen to be paid for by workmen. Pick handles ten cents each. When a man leaves Company's employ, the value of any tool not returned shall be paid for by him.

No. 30. If any employee is absent on whom depends getting out coal, such as landing tender, etc., the officials shall fill his place for the day by an employee selected from the works. On such occasion the rate paid shall be the same as such employee is receiving at his regular work, but not to exceed $2.00 per day.

No. 31. In case the mine knocks-off during the day, riding rakes to be put on at 9.30 a.m. per quarter day, 12.30 for ½ day, 2 p.m. for ¾ day, after 2.30 p.m., full day to be allowed.

This clause to apply to underground men and boys engaged in getting out coal, unless it is necessary to get out coal already mined or for development work, then they shall continue the same as if the mine had not knocked off.

No. 32. Driving levels, $3.50 per yard and paid for coal.

No. 33. This agreement to continue in force for the period of 2 years.

To this schedule the Company made the following statement in reply:—

Officers and Members of Chignecto, P.W.A.,
Chignecto, N.S.

Gentlemen:—

We beg leave to notify you that we have decided to establish a price for pillar and long wall work at Chignecto, which will take effect on the first day of June, 1908.

We herewith submit same to you for approval.

Pillar both east and west, 25 cents per box. Stone 5 cents per lineal yard of pillar for all stone in excess of six inches.

Long wall, 27 cents per box for coal; 40 cents for butts where bench is lifted and 25 cents for butts where bench is not taken out.

We would, furthermore, like to meet your committee and discuss the matter of general wages, as we feel we would be obliged to ask you for a general reduction from last year's prices to enable us to continue our work at Chignecto.

Last year with present rates, we made no money, this year, coal has dropped 25 cents per ton, and we will be obliged to get concession to meet this.

We wish to meet you frankly on this question and see if we cannot get at a mutual arrangement for a reduction in the cost of producing coal.

The members of the Board are pleased to state that owing to the conciliatory attitude of all concerned, coupled with the patient efforts of the Board, the following sections in the schedule were ultimately eliminated or mutually amended and agreed upon, viz.: Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31. Such eliminations and amendments agreed upon are as follows:

No. 1. Eliminated, and the Board places the following on record with respect to it.

"The Board viewed with much satisfaction the apparently very cordial and friendly relations which subsisted between the employer and employees at this colliery, and deem it inexpedient to interfere in the matter, further than to state its recommendation and hope that such happy relations may continue. It is the opinion of the Board, from the evidence adduced, that it would be unnecessary to incorporate this section in any schedule of agreement between the parties."

"No. 2. Eliminated, and the following is substituted therefor:—'On the suspension of an employee for any infraction of the mine rules or for any other cause, the employee within thirty-six hours after such suspension shall have his case referred to the General Manager or his representative and a Committee of the Lodge, and the finding in such case shall govern. And the Board recommends that in all such cases so to be referred the suspended employee should first place his case before the manager for adjustment. Nothing in this recommendation shall mean an extension of the time for a hearing before the General Manager or his representative and the Committee of the Lodge."

"No. 3. Agreed upon, and the Board defines 'Clean Coal' to mean the same as coal customarily sold to the public."

No. 5. The following substituted:—"Company shall keep the houses in repair at present rent rates. Tenant employees shall not be liable for damages or repairs to houses previous to 1st April, 1908."

No. 9. The following substituted:—"Company to keep a proper supply of water for use of tenants but employees shall not maliciously or negligently injure or destroy the pumps."

No. 10. In lieu of this section, the following advances are recommended for the classes of outside labour as named: "Ash wheelers from $1.35 to $1.50, screen men $1.35 to $1.50, box car loaders $1.40 to $1.50, bank men $1.40 to $1.50."

No. 12. The following is substituted:—"For laying roads in tight bords or long wall, when miners carry the rails, 10 cents per yard, and nothing to be paid if rails are delivered at bord end or gateway of long wall. Butts 4x4, 50 cents each when bench is taken out and 30 cents each for butts on the bench. The Board is of opinion that the claim made for payment for timber in coal mining is as a rule legitimate, but in this instance it is evident that such payment for timber has been part of the consideration of the rates paid per car."

No. 13. The following is substituted in view of the conditions obtaining at this colliery:—"All stone in excess of 6 inches on the bench to be paid at the rate of 5 cents per inch per lineal yard."

No. 14. The following is substituted:—"All heads to be paid for at the uniform rate of $1.50 per yard."

No. 19. The following is substituted:—"2 cents per car to be paid extra when cars have to be pushed over 350 feet."

No. 20. Amended as follows:—"Employees to be given a time sheet every half month."

No. 29. Amended by striking out the word "maliciously" in the first line and substituting "negligently" therefor.

No. 30. Amended by striking out the word "shall" in the second line and substituting the word "may" therefor.

The following sections in the application for this reference, that is to say, 4, 6, 7, 8, 11, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 31 and 33 were mutually agreed upon between the parties during the sittings of the Board, the Board making short adjournments from time to time in order to bring about this conciliatory result. The Board naturally confirms these sections and recommends their adoption.

The remaining sections of the application, viz.: 7, 11, 16, 17, 18, 22, 26, 32 and 33 were disposed of by the Board as follows:—

No. 7. Eliminated, on the grounds that in the opinion of the Board it was beyond the powers of the Board in this instance to lessen the hours of labour.

No. 11. Eliminated, on the ground that the Board would not adjudicate on non-existent or prospective disputes.

Nos. 16, 17 and 18. Eliminated, by the employees through the recommendation of the Board.

No. 22. Eliminated, by the Board on the ground that the Company, having no scales on their bankhead to weigh coal, payment for same therefore cannot be made by the ton. "The N. S. Mines Act" provides for the installation of scales.

No. 26. The Board recommends the adoption of this section as set out in the application.

No. 32. The Board recommends with respect to this section, as follows:—"Driving levels $3.50 per lineal yard and paid for coal, mine bord $2.00 per lineal yard and paid for coal."

No. 33. The Board recommend the adoption of this section as set out in the application.

NEW SCHEDULE RECOMMENDED.

The Board recommends the following as the new and complete schedule and is their unanimous finding on the points in dispute:—

"Agreement between the Maritime Coal, Railway and Power Company, Limited, and Chignecto Lodge, No. 54, P.W.A., with respect to prices to be paid at the colliery and with respect to other matters governing the relations between the said Company and the said lodge."

No. 1. On the suspension of an employee for any infraction of the mine rules or for any other cause, the employee, within 36 hours after such suspension shall have his case referred to the General Manager or his representative and a committee of the lodge, and their finding in such cases shall govern. In all such cases so to be referred the suspended employee shall first place his case before the manager for adjustment. Nothing herein shall mean an extension of the time for a hearing before the General Manager or his representative and the committee of the lodge.

No. 2. Company to send clean coal to its employees of a quality the same as is customarily sold by the Company to the public.

No. 3. Responsible person to take tallies of boxes.

No. 4. Company shall keep the houses in repair at present rent rates. Tenant employee shall not be liable for damages or repairs to houses previous to 1st of April, 1908.

No. 5. Number of bank hands arranged according to quantity of coal turned.

No. 6. No boy allowed to perform a man's work.

No. 7. Company to keep a proper supply of water for use of tenants, but employees shall not maliciously or negligently injure or destroy the pumps.

No. 8. The following rates shall be paid for these classes of outside labour per day: Ash wheelers $1.50, screen men $1.50, box car loaders $1.50 and bank men $1.50.

No. 9. Laying roads in tight bords or long wall, when miners carry the rails, 10 cents per yard, and nothing to be paid if rails are delivered at bord end or gateway of long wall. Butts 4x4, 50 cents each when bench is taken up, and butts 4x4, 30 cents each on the bench.

No. 10. All stone in excess of 6 inches on the bench to be paid for at the rate of 5 cents per inch per lineal yard.

No. 11. All heads to be paid for at the uniform rate of $1.50 per yard.

No. 12. Sufficient supply of tallies to be given to each miner.

No. 13. Two cents per box to be paid extra when cars have to be pushed over 350 feet.

No. 14. Employees to be given a time sheet every half month.

No. 15. Docking system to continue as now in force.

No. 16. Riding rakes to be put on at 6.15 a.m., and all men to be given tickets as they come on bank in the morning, men to be at bottom of mine at 7 a.m.; riding rakes to be put on at 3.45 p.m. during the week. Saturday 3.30 p.m.

No. 17. When management know the night before that the following day is to be an idle one, whistle to blow at 9 p.m.

No. 18. Following days to be considered holidays, viz.: Labour, Dominion, Victoria and Christmas Day.

No. 19. Any spcial work between 12 Saturday night and 12 Sunday night to be paid at the rate of time and a half.

No. 20. A paper to hang at tally house showing each day's coal, such paper to be hung up not later than the following morning.

No. 21. Company to supply the following tools to miners: Picks, drills, shovels, stemmers and needles. Wornout or broken tools when returned to store to be replaced free of charge, and picks, drills and augers to be sharpened by company free.

No. 22. Tools negligently damaged or lost by workmen to be paid for by workmen. Pick handles, 10 cents each. When a man shall leave Company's employ, the value of any tool not returned shall be paid for by him.

No. 23. If any employee is absent on whom depends getting out coal, such as landing tender, etc., the official may fill his place for the day by an employee selected from the works. On such occasion the rate paid shall be the same as such employee is receiving at his regular work, but not to exceed $2.00 per day.

No. 24. In case the mine knocks off during the day, riding rakes to be put on at 9.30 a.m. for 1-4 day, 12.30 p.m. for 1-2 day, 2 p.m. for 3-4 day, after 2.30 p.m. full day to be allowed. This section to apply to underground men and boys engaged in getting out coal, unless it is necessary to get out coal already mined, or for development work, then they shall continue the same as if the mine had not knocked off.

No. 25. Driving levels $3.50 per lineal yard and paid for coal, mine bords $2.00 per lineal yard and paid for coal.

No. 26. This agreement to continue in force for the period of two years from 31st July, 1908."

ATTITUDE OF RESPECTIVE PARTIES.

Before the adjournment of the Board at Chignecto Mines, the chairman asked the respective parties if they wished to make this a Board of Arbitration or a Board of Conciliation, and requested written replies. The following was received from the Company:—

"Our Company feel that under the present state of the market, and the outlook for the future, that they would not care to agree to accept the decision, as from present indications it looks as though there must be a reduction in the cost of producing coal in this Province in the near future."

"(Sgd.) DAVID MITCHELL,
"General Manager."

The Lodge sent the following:—

"I am directed to notify you that the Lodge is willing and anxious to have the dispute referred to your Board as a matter for arbitration and not conciliation, and that the finding of your Board shall be final and binding on both parties to the dispute."

"(Sgd.) RONALD BUXTON,
"Secretary."

The Board desires to state that they have spent much time and labour to effect an unanimous and conciliatory finding, and they express the hope that both the employer and the employees will accept the full report of the Board.

Herewith enclosed are the minutes of evidence taken, together with the exhibits therein referred to.

All of which is respectfully submitted.

(Sgd.) W. CHAS. WILSON,
Chairman.

(Sgd.) B. B. BARNHILL,

(Sgd.) R. B. MURRAY.

Dated at Amherst, N.S., 25th of July, 1908.

HONOURABLE RODOLPHE LEMIEUX,
Minister of Labour, Ottawa.

XIV.—APPLICATION FROM EMPLOYEES OF THE COBALT CENTRAL MINING COMPANY, LIMITED, COBALT, ONTARIO — BOARD ESTABLISHED—UNANIMOUS REPORT BY BOARD—NO CESSATION OF WORK.

Application received—July 20, 1908.
Parties Concerned—Cobalt Central Mining Company, Ltd., Cobalt, and its employees.
Applicants—Employees.
Nature of industry concerned—Metalliferous mining (silver).
Nature of dispute—Wages and hours.
Number of employees affected—105.
Date of constitution of Board—August 22, 1908.
Membership of Board—Mr. John A. Ewan, Toronto, Chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. Ewan finding himself unable to act withdrew from the Board and was succeeded by Prof. S. J. McLean, of the University of Toronto; Mr. E. C. Fraleck, Cobalt, was appointed a member of the Board on the recommendation of the Company, and Mr. Charles B. Duke, Cobalt, on the recommendation of the employees.
Report received—August 29, 1908.
Result of enquiry—Strike averted.

The employees concerned in this dispute were described in the application as miners, engineers, carpenters and labourers. The application set forth that "on July 1 the men were called together early in the morning and were told by the Superintendent that the mine would be closed down for that day and that the men were discharged. He then told them that they could get their places back by applying the next day, but that the hours should be increased to 10, and the wages reduced to 25 cents from attached schedule."

A meeting was held by the employees on the same day, and it was decided to send a committee of three to the Company to ask for a settlement at 25 cents reduction on a 9 hour basis. It was stated by the men that the Company absolutely refused this proposal, and application was thereupon made to the Minister of Labour for the establishment of a Board of Conciliation and Investigation. Mr. Jacob W. Young, General Superintendent of the Company, in a statement in reply to the application, said he was unable to justify to the shareholders of his Company a continuance of the high wages he had been paying.

PROCEEDINGS BEFORE THE BOARD.

During the proceedings before the Board much interesting information was submitted concerning the duration of the working day and the attitude thereto of various managers. The following details are obtained from the lists of those contributing to the Miners' Hospital:—

On Ten hour day.	No. of men.
Chambers-Ferland	36
Silver Queen	76
Cobalt Lake	80
Coniagas	138
Right of Way	76
Beaver	22
Kerr Lake	100
Tretheway	110
Nipissing	450
Cobalt Central	95
Buffalo	140
O'Brien	181
Trinity Cobalt	128
Provincial	21
Drummond	70
Crown Reserve	40
Silver Leaf	35
	1,798

On Nine Hour Day.	No. of men.
Foster	39
Nova Scotia	72
Temiskaming	85
Larose	150
City of Cobalt	72
McKinley-Darragh	153
Townsite	29
	600

In a statement in evidence Mr. J. C. Houston, Manager of the Right of Way Mining Company, stated that he was satisfied he could carry on his mine at as low cost on a basis of nine hours as on one of ten hours. He stated that he was working his mine on a ten hour schedule simply because he had accepted this schedule with a view to arriving at uniformity in the hours of labour in mining. Other representatives stated that their companies were entirely satisfied with the results of the nine hour day. On the other hand, the managements of certain mines were opposed to the nine hour day, and their attitude was stated to be the chief obstacle in the way of the more general acceptance of the shorter day. The reference in the third clause of the findings of the Board to Professor Mickle to determine the respective costs of the nine hour day and of the ten hour day, is explained as being due to the fact that the management of the mine justify a change to the ten hour day in part by a reference to the question of costs. Prof. Mickle as provincial mine assessor is necessarily acquainted with the costs of operation and will have ready access to the material. No other person, it is added, occupies the same position with respect to the Cobalt mines.

WAGES SCHEDULE PRIOR TO JULY 1.

The following is the wages schedule in force at the Standard Cobalt Mines, Limited, prior to July 1, 1908:—

MINE.

Machine men	$3.50	per shift of	nine hours.
Machine helpers	3.00	"	"
Hand miners	3.00	"	"
Pumpmen	3.00	"	"
Timbermen	3.50	"	"
Timber helpers	2.75	"	"
Trammers	2.75	"	"
Muckers	2.75	"	"
Cage tenders	3.00	"	"
Hoistmen	3.10	"	"
Deckmen	2.50	"	"
Head Blacksmith	4.00	"	"
Blacksmith	3.50	"	"
Blacksmith's helpers	3.00	"	"

MILL.

Jigmen	$3.00	per shift of	twelve hours.
Tablemen	3.00	"	"
Samplers	2.75	"	"
Engine tenders	3.50	"	"
Other labour	2.50	"	"

POWER HOUSE.

Engineer	$3.50	per shift of	twelve hours.
Firemen	3.25	"	"
Pipe fitters	3.00	"	Nine
Machinists	3.50	"	"
Carpenters	3.50	"	"
Teamsters	2.75	"	"

SURFACE LABOUR.

Labour	$2.50	per shift of	nine hours.

The Standard Cobalt Mines, Limited, it may be added, is the Company controlling the Cobalt Central Mining Company.

A letter from the Chairman to the Department stated that the members of the Board nominated by the Company and employees respectively were endeavouring to obtain the formal consent of these parties to the provisions of the award. The Department received word on September 7 from Mr. Jacob W. Young, Manager of the Standard Cobalt Mines, stating as follows: "Am pleased to say that the findings of the Board are acceptable to the Company as a settlement of the differences with its employees."

FINDINGS AND COVERING LETTER.

The following is the text of the findings of the Board and of a covering letter from the chairman, addressed to the Deputy Minister:—

Ottawa, Ont., September 1, 1908.

Dear Mr. King:—

The Board in the Cobalt Central Mining Company case held its sessions at Cobalt from August 25th until August 29th. On the evening

of August 27th the chairman of the Board explained the provisions of the Industrial Disputes Investigation Act to the employees at the mine. Later in the same evening he attended a conference between representatives of the employees and representatives of the management.

In the course of the evidence brought before the Board material was submitted bearing on the advisability of more uniform conditions of employment throughout the Cobalt mining camp. In the case before the Board the question at issue was narrowed down to the question of the length of the working day. The chairman of the Board and Mr. C. B. Duke, one of the members of the Board, are of the opinion that in any movement for uniformity of hours of labour in the Cobalt mining camp the nine hour day is preferable to the ten hour day.

After a careful consideration, which was characterized by an extremely fair and broadminded attitude on the part of the members of the Board representative of the respective parties to the dispute, the attached recommendation was unanimously agreed upon.

Very truly yours,

(Sgd.) S. J. McLean.

W. L. Mackenzie King, Esq., C.M.G.,
Deputy Minister of Labour, Ottawa, Ont.

FINDINGS.

Cobalt, August 29, 1908.

In the matter of the Industrial Disputes Investigation Act, 1907, and of a dispute between the Cobalt Central Mining Co., Ltd., Employer, and Employees of the said Company, Employees.

The Board appointed under the Act makes the following recommendation:—

1. We are of the opinion that the action of the management in terminating on July 1st, 1908, without adequate notice, the hitherto existing arrangements in regard to hours of labour and wages, and abruptly informing the men that they would be continued only on a ten hour day and a reduction of 25 cents per day, was unfair to the men.

2. The Board strongly recommends that the management of the Cobalt Central Mining Company should not make any reduction in the scale of wages or the hours of labour in force since July 1st, 1908, until May 1st, 1909.

3. If, however, by December 1st, 1908, after the examination of the books of the Company by Prof. Mickle, the Mine Assessor, it is found that the cost of mining operations in the period September 1, 1908, to December 1st, 1908, is not less under the ten hour day than under the nine hour day, that the Company then place the men on the nine hour day.

(Sgd.) S. J. McLean.
Chairman.

(Sgd.) E. L. Fraleck.

(Sgd.) C. B. Duke.

XV.—APPLICATION FROM CAR MEN OF THE QUEBEC AND LAKE ST. JOHN DIVISION OF THE CANADIAN NORTHERN QUEBEC RAILWAY COMPANY—BOARD ESTABLISHED — AGREEMENT CONCLUDED ON ALL POINTS.

Application received—August 21, 1908.
Parties concerned—Quebec and Lake St. John Division of the Canadian Northern Quebec Railway Company and its employees.
Applicants—Employees.
Nature of industry concerned—Railways.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—49.
Date of constitution of Board—September 30, 1908.
Membership of Board—Mr. Cyrille Tessier, Quebec, was appointed Chairman on the joint recommendation of the other members of the Board, but notified the Department that it would be impossible for him to undertake the duties of the position. Mr. Ludovic Brunet, Quebec, was accordingly appointed to succeed Mr. Tessier as Chairman, on the recommendation of the other members of the Board. Mr. Edward A. Evans, Quebec, was appointed a member of the Board on the recommendation of the Company, and Mr. Alfred Chartrain, Montreal, on the recommendation of the employees.
Report received—November 19, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

The application in this case referred to certain efforts which had been made by the carmen employed on the Lake St. John division of the Canadian Northern Quebec Railway to obtain from the Company certain increases of wages and improvements of conditions generally in the workshops on this line. A statement from Mr. F. M. Spaidal, General Manager of the Railway, was received in the Department on August 31 in reply to the statement of grievances accompanying the application. The statement on behalf of the Company set forth that the General Manager had met a committee of the men during May, July and August last to discuss the question of a new schedule, and that in the matter of wages it was stated "the men were informed that owing to decrease in traffic which was common to all railroads the Company was unable to increase its rates. It was also proven to the men that their rates compared favourably and in many respects were higher than wages paid on other roads of similar standing." Copies of statements showing contemporary rates at Quebec as paid by the Quebec, Montreal and Southern Railway Company accompanied the letter. With reference to shop facilities it was alleged that the sanitary conditions were satisfactory, the shops being well heated and comfortable for the men to eat their noon meal.

With regard to the general conditions of work the Board found that there was no ground for a special grievance on the part of the men. Concerning the question of wages a special schedule was framed to take effect from the 1st of December, and to remain good for a period of one year, which improved the situation of the men in certain classes, particularly the coach, locomotive and freight painters, car repairers and the blacksmiths' helpers. The following table shows respectively the rates of wages in the various classes prior to December 1, and the rates recommended in the report of the Board.

SCALE OF WAGES.

CAR DEPARTMENT EMPLOYEES.

	Old Rate.	New Rate.
Carpenters, coaches, benches and cab	16 c. to 20½c.	16 c. to 20½c. per hour.
Freight carpenters	16 c. " 17 c.	16 c. to 17 c. "
Painters, coach and locomotive	15 c. " 21 c.	17 c. to 21 c. "
Freight painters	15 c. " 21 c.	" " "
Car cleaner	14 c. " 14½c.	14½c. "
Lamp cleaner	14 c.	"
Tinsmiths	19 c.	20 c. "
Car repairers	12½c. " 17 c.	14½c. to 17 c. "
Blacksmiths' helpers	10 c.	14 c.

FINDINGS OF THE BOARD.

The following is the text of the report of the findings of the Board:

Quebec, 17th November, 1908.

THE HON. RODOLPHE LEMIEUX,
Postmaster-General and Minister of Labour, Ottawa, Ont.

Dear Sir:

In the matter of certain differences between the Canadian Northern Quebec Railway Company (Quebec & Lake St. John Railway Company) and certain of its employees, being members of the Brotherhood of Railway Carmen of America, which has been referred to us for settlement under the Industrial Disputes Investigation Act, we, Ludovic Brunet, P. J. Jobin and Edward A. Evans, all of the city of Quebec, having been appointed by the employees and the Company to investigate the differences in question, beg to report as follows:—

As regards the rules and regulations governing the employees, members of the Brotherhood of Railway Carmen of America, we found that certain rules and regulations had already been agreed upon, and as a consequence, no action was taken in this respect.

With regard to the petition of the employees for additional protection to life and means of avoiding personal injury, having visited the yards in the city of Quebec and in Limoilou we are of the opinion that the repair tracks specially set apart for the men to work are properly laid out and every means taken to prevent any possibility of injury to the car repairers while working at their different occupations.

As regards the shops, closet and other accommodation, we do not feel in a position to make any recommendations as regulations governing these are provided for in the Factory Inspection Act, Quebec, and it is a matter appertaining to the duties of the Factory Inspector under this Act, who has powers to enforce rules and regulations providing for the safety of employees and the hygienic conditions of the shops. We found, however, that the shops were exceptionally well lighted, and that at Limoilou especially, the employees had every accommodation for obtaining their meals.

As regards the question of wages, your Board of Conciliation decided to call in Mr. J. Desrosiers, Chairman of the Protective Board, Mr. F. Legaré, Vice-Chairman, Mr. Jules Belanger, Recording Secretary, Mr. Jos. Robitaille and Mr. H. Foy, on behalf of the employees, and Mr. F. M. Spaidal, Superintendent of the Railway Company, on behalf of the Company; but, with the exception of Messrs. Desrosiers and Spaidal, we found that it was not necessary to call upon the other gentlemen mentioned. As a result of this conference, which took place at the Court House, Quebec, on Monday, the 16th inst., it was agreed that the following maximum and minimum rates should apply:—

Carpenters, cab, coach and bench	16 c.	to	20½c.	an hour
Freight carpenters	16 c.	"	17 c.	"
Painters, coach, locomotive and freight	17 c.	"	21 c.	"
Washer painters, lamp cleaners and car cleaners			14½c.	"
(Upon the understanding that should there be any employees at present in the employ of the Company obtaining a higher rate, said higher rate should not be disturbed).				
Car Inspectors			20 c.	"
Tinsmiths			20 c.	"
Car repairers	14½c.	"	17 c.	"
Blacksmiths			20 c.	"
Blacksmiths' helpers			14 c.	"

It was found that air brake cleaners, and testers, and pattern makers were not applicants for any change in the existing rate of pay, and as a consequence your Board did not consider the question of rates regarding them.

The above schedule of wages to take effect on the first day of December, 1908, and to continue in force for one year and thereafter unless thirty days' notice is given by either side of a change.

We are pleased to be able to report that the conference between your Board and Mr. Desrosiers, representing the employees, and Mr. Spaidal, representing the Company, was of a most satisfactory nature, and the schedule of wages as mentioned above, as also the other subjects mentioned, were accepted by Messrs. Desrosiers and Spaidal as satisfactory, the relations between the employees and the Company appearing to us to be harmonious.

Yours respectfully,

(Sgd.) LUDOVIC BRUNET,
Chairman.

(Sgd.) P. J. JOBIN,
Representative of the Employees.

(Sgd.) EDWARD A. EVANS,
Representative of the Company.

XVI.—APPLICATION FROM FIREMEN AND ENGINEERS OF THE CANADIAN PACIFIC RAILWAY COMPANY — BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—August 22, 1908.
Parties concerned—Canadian Pacific Railway Company and Firemen and Engineers in its employ.
Applicants—Employees.
Nature of industry concerned—Railways.
Nature of dispute—Alleged wrongful dismissal of certain employees.
Number of employees affected—Directly, 2,000; indirectly, 5,000.
Date of constitution of Board—January 5, 1909.
Membership of Board—Honourable Mr. Justice Fortin, of the Superior Court, Montreal, Chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. Wallace Nesbitt, K.C., Toronto, appointed on the recommendation of the employers; Mr. J. G. O'Donoghue, Toronto, appointed on the recommendation of the employees.
Report received—January 15, 1909.
Result of inquiry—Agreement concluded on all points; strike averted.

The differences in question in this matter were set forth in the application of the employees as follows:—

(1) The dismissal of Engineer William McGonegal, of Sault Ste. Marie, for alleged violation of rule 89 (a) of the Company's Rule Book, on November 12, 1907. "Claim, wrongful dismissal; request reinstatement and pay for time lost."

(2) The dismissal of Engineer Thomas W. McAuley, of North Bay, for alleged recklessness in or about the month of November, 1907. "Claim, wrongful dismissal; request reinstatement and pay for time lost."

The Canadian Pacific Railway Company, in its statement in reply to the application, expressed its unwillingness to reinstate either of the two dismissed employees, holding that both had been dismissed with good cause, and insisting that the provisions of the Act could not properly be invoked in respect to cases such as those indicated.

The position of the Company with respect to McGonegal was set forth as follows, namely: "The said McGonegal was, on November 12, 1907, in charge of engine 1568, train No. 116, east bound, and brought his train into collision with train No. 115, west bound, at mileage 102, five telegraph poles east of east switch at Blind River, on the Sault Ste. Marie branch of the Company's railway. The collision, which resulted in injuries to persons and damage to property, was the direct result of said McGonegal attempting to take the switch at Blind River at the east end instead of the west end, in the disregard and violation by McGonegal of the Company's rules and regulations, and more particularly the violation of rule 89A, reading as follows:

"At meeting points between trains fixed by train order form A or form P1 (superseding order mentioned above), the train of inferior class, or in the case of trains of the same class, the train in the inferior direction must, unless otherwise directed, take the siding, and must pull in when practicable. If necessary to back in, the train must first be protected as prescribed by rule 99."

"The testimony taken on the investigation by the Company's officials, and McGonegal's own admission, furnish conclusive proof that he ran his train through the east end in the face of an incoming train, about which he had been advised, in disregard of the rule with which he was familiar, requiring him to enter the siding at the west end. The signed statement of the said McGonegal is as follows:—'Received order No. 62 at Blind River, from Conductor Gaudet. This order was to meet 115 at Blind River. It required us to get into siding for No. 115. Did not do that. We pulled down to east end to back in. That could have been avoided, as we could have taken siding at west end.'"

The position of the Company with respect to McAuley was as follows:—

"The said McAuley was dismissed from the Company's service for recklessness in the operation of his train under the following circumstances: The said McAuley was in charge of engine 1626 on November 21, 1907, and becoming stalled at or near mileage 82, had to take the front end of train to Azilda. On returning to pick up his train, he approached it too fast, resulting in collision and damage to the Company's property.

"That said McAuley exercised poor judgment and reckless disregard of the safety of the Company's property, and also was guilty of an infringement of rule No. 101A, which reads as follows:

"'When a train doubles, the rear portion must be protected against the engine returning for it, by two torpedoes placed on the rails, two rails length apart, on the same side as the engineer of the returning engine, 500 yards (10 telegraph poles) from the front end of the rear portion, and in addition, at night or during foggy, smoky or stormy weather, a red light must be placed on the front end of the leading car of the rear portion. This, however, will not relieve enginemen and trainmen accompanying front portion from responsibility in carefully noting location of rear portion and returning to it with engine under proper control.

"'Conductor will be held responsible for arranging protection as required.

"'When at night or during foggy, smoky or stormy weather, an engine is cut from a train more than 60 feet from a water tank, for the purpose of taking water, a trainman must remain at the front end of the train with a light to indicate its location.'"

By agreement between the parties to the dispute, the proceedings were suspended for some months before the appointment of a chairman; on their resumption, Messrs. Nesbitt and O'Donoghue being unable to agree in a recommendation for a third member of the Board, the Minister appointed the Honourable Mr. Justice Fortin, of Montreal, to the Board, which was finally constituted on January 5. The inquiry was then proceeded with. The findings of the Board were signed by all the members, and sustained the contention of

the Company with reference to the case of McGonegal, and the contention of the men with reference to the case of McAuley. Mr. O'Donoghue, however, the member of the Board appointed on the recommendation of the men, though attaching his signature to the findings, differed from his colleagues in the case of Engineer McGonegal. The members agreed unanimously with respect to both matters of dispute "that it should be clearly recognized by the employers and employed in the case of the public that the employer must have the inherent right of regulating, subject to the contract between the parties and the law of the land, the discipline and organization of the Company." The Department subsequently received a formal notification to the effect that the employees would abide by the findings of the Board, and the whole dispute was understood to have been amicably arranged.

TEXT OF FINDINGS OF BOARD.

The text of the findings of the Board is as follows:—

In the matter of the Industrial Disputes Investigation Act, 1907, and of the dispute between the Canadian Pacific Railway Company, Employer, and the Brotherhood of Locomotive Firemen and Enginemen, Employees.

The undersigned having been appointed at a Board of Conciliation and Investigation under the above Act, held at Montreal, on the 14th and 15th days of January, 1909, and having heard the parties, proceeded to investigate the following claims:—

In the matter of William McGonegal.

The majority of the Board came to the conclusion that the contention by Engineer McGonegal as to the construction of rule 89 (*a*) was incorrect, and that he should have backed his train and pulled into the siding.

Mr. O'Donoghue was of the opinion that the question of the practicability of pulling in or backing in was to be determined by the engineer on the ground, and the understanding of other engineers appears to support the contention of Mr. McGonegal.

The contention of the Company is therefore sustained.

In the matter of Thomas W. McAuley.

The Board having heard the parties, are of the opinion that the officers of the Company were justified, on McAuley's signed statement the day following the accident, in dismissing him.

It appears, however, that this was the first trip over this portion of the road by McAuley, and the Board would suggest that he should, in view of the further light that has been thrown upon the case by the discussion, apply for re-instatement.

In both these matters the Board are unanimously of the opinion that it should be clearly recognized by the employers and employed in the interest of the public that the employer must have the inherent right of regulating, subject to the contract between the parties and the law of the land, the discipline and organization of the Company.

Dated at Montreal, this 15th day of January, 1909.

(Sgd.) THOMAS FORTIN,
Chairman.
WALLACE NESBITT,
For the Company.
J. G. O'DONOGHUE,
For the Brotherhood.

XVII.—APPLICATION FROM LOCOMOTIVE ENGINEERS EMPLOYED BY THE CANADIAN NORTHERN ONTARIO, THE CANADIAN NORTHERN QUEBEC AND THE QUEBEC AND LAKE ST. JOHN RAILWAY COMPANIES — BOARD ESTABLISHED — AGREEMENT CONCLUDED ON ALL POINTS.

Application received—August 22, 1908.
Parties concerned—Canadian Northern Ontario, the Canadian Northern Quebec and the Quebec & Lake St. John Railway Companies and Locomotive Engineers in their employ.
Applicants—Employees.
Nature of industry concerned—Railways.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—Directly 81, indirectly 260.
Date of constitution of Board—September 14, 1908.
Membership of Board—His Honour R. D. Gunn, Junior County Judge of Carleton County, Chairman, appointed on the recommendation of the other members of the Board; Mr. F. H. Richardson, Toronto, appointed on the recommendation of the Companies; Mr. J. Harvey Hall, Toronto, appointed on the recommendation of the employees.
Report received—November 16, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

The application in this case was received in the Department on August 27, being signed by Mr. W. B. Best, of Winnipeg, General Chairman of the Brotherhood of Locomotive Engineers, and Mr. S. White, of Montreal, Secretary of the Brotherhood for the Eastern lines. The dispute related to a question of wages and general conditions of employment, schedules being put in with the application in question, representing in detail the demands made on behalf of the employees. The Minister decided to establish a Board, which was duly constituted as set forth above.

The demands of the employees were for an increase in the rate of wages and a uniform set of working articles, both which claims were resisted by the Company. The differences involved proved more than commonly difficult to adjustment, owing in part doubtless to the wide area over which the dispute extended and also to the fact that, although the employer was known generally as the Canadian Northern Railway system, and that proceedings with the Department were conducted through that Company, there were nevertheless three individual companies concerned in the dispute, known respectively as the Canadian Northern Ontario, Canadian Northern Quebec and Canadian Northern Quebec & Lake St. John Railways.

The Board, after some preliminary and unsuccessful efforts to bring about a settlement without proceeding to an investigation under the Act, found it

necessary to undertake a searching enquiry into the whole matter, and to that end held sessions in Ottawa and Toronto as occasion required, discussing the subject, moreover, in detail with the officers of the Companies and the members of the engineers' committee and took such evidence as was from time to time considered necessary. In conducting the investigation on these lines, it became necessary for the members of the Board to obtain a more intimate personal knowledge of the circumstances relating to a number of questions embraced in the dispute, such as switching points, terminals, provision for the comfort of the men at specified places, etc., and the Board accordingly inspected the three roads concerned, free transportation for the members of the Board and witnesses being furnished for this purpose by the Canadian Northern Railway Company. As a result of the knowledge obtained in this way, the Board found itself able to make a number of recommendations looking to an improvement of conditions under which engineers are compelled to work, especially at points where the men "are frequently forced to remain over night and some times after a long trip in most inclement weather." The suggestions of the Board in this direction were accepted by the Companies and instructions were immediately given to the superintendents to comply therewith.

The application for a schedule common to the three railways concerned was most carefully investigated and considered, and working articles were finally drawn up and set forth in two separate schedules attached to the report of the Board as applicable to the several roads figuring in the dispute, the terms of the respective schedules being identical.

As to the question of wages, the Board found, to quote from the report, that the lines "are each equipped with a standard type of motive power and the engineers on each line are an intelligent and efficient class of men, well qualified to discharge the responsible duties their engagement requires, and are performing the same duties, assuming the same responsibilities and incurring similar risks to engineers on other lines of railways." After carefully weighing all the arguments advanced and all the circumstances brought to light on this point, the Board decided that the wages paid the engineers were insufficient in comparison with the services performed and compared unfavourably with those paid by other lines. The Board took into account, however, the fact that having regard to the earnings, business done, and other circumstances with relation to the employing Company and the fact that the newer lines of railway offered prospects and opportunities of promotion not found on older roads, and the demand of the men with respect to wages were not considered in full. A schedule was submitted attached to the report setting forth the exact rates of wages recommended by the Board.

It was recommended by the Board that the schedule covering the working articles should come into effect from the date of the award, namely, November 12, 1908, while the schedule relating to the rates of pay should come into force from the 1st of January, 1909.

The Department was given to understand that the Board had received an informal intimation that the findings would be accepted by the parties to the dispute and that it subsequently received a formal acceptance on behalf of the employees. In further correspondence with the Department it was claimed by

the Company that certain articles in the agreement did not conform with the Company's understanding of what had taken place when these matters were under discussion by the Board. With the modifications in question formal consent, however, was given by the Canadian Northern Railway Company to the findings of the Board in this matter.

FINDINGS OF THE BOARD.

The text of the findings of the Board and of the schedules attached is as follows respectively:—

To the Honourable Rodolphe Lemieux,

Minister of Labour,

Ottawa.

The Board of Conciliation and Investigation appointed on the 14th day of September last under the Industrial Disputes Investigation Act, to whom were referred the disputes between the Locomotive Engineers, and the Canadian Northern Ontario, Canadian Northern Quebec, and Quebec & Lake St. John Railway Companies, having fully investigated the matters referred to them, humbly submit the following report:—

Pursuant to appointment the Board met at the Court House, Ottawa, on the 15th day of September last, and were attended by representatives of the Companies and engineers interested.

The dispute outlined in the application filed on behalf of the engineers, and the statement of their representatives present, to be fully understood, is shortly summarized in the following paragraph.

The locomotive engineers engaged on the C. N. O. operating between and having terminals at Toronto and Sudbury in the Province of Ontario, and the locomotive engineers on the C. N. Q. operating between and having terminals at Montreal, Hawkesbury, and Riviere a Pierre, and having one or more branches, and the engineers on the Q. & L. St. J. operating between and having terminals at Quebec and Chicoutimi, all in the Province of Quebec (numbering 81 directly and 260 indirectly interested), demand by their application filed in your Department an increased rate of wages and a uniform set of working articles, to govern their wages and duties on the aforesaid lines of railway, while the Company strenuously resist the application on both points.

The Board find that there was a schedule of rates and working articles signed by the engineers and management on the Q. & L. St. J. in September, 1907, and a distinct and separate schedule exists covering rates and working articles, on the C. N. Q., signed in July, 1907, and that no schedule exists severing either rates or working articles on the C.N.O., as it was more recently put in operation, and the engineers were supposed to be governed by the same schedule as the engineers on the C. N. Q.

The Board, in compliance with the provisions of the Act, occupied some time in an earnest and sincere endeavor to bring about a settlement of the whole dispute between the parties, but without any satisfactory results, and to emphasize their objections the Company filed written statements refusing to consider the question of increasing the rates on any of the lines, and requesting a full and complete inquiry into the dispute by the Board, and the representatives of the engineers filed a similar

statement, refusing to abandon any portion of their demand, and joined in the request for a full and complete investigation.

The Board, satisfied that further time or effort to effect a settlement of the dispute or any part of it would be uselessly spent, considered the question of procedure and concluded that the best results would be obtained by considering and settling the working articles set out in the application, and afterwards taking up the question of increased rates; and with that end in view adjourned to the head offices of the Companies in Toronto to discuss and consider the working articles with the Superintendent of the C. N. O., and the Board ordered and directed that the engineers committee from the C. N. O. be present.

As in duty bound, the Board in reassembling at Toronto further endeavoured to effect a settlement with the Chief Executive of the Company, but were met with a prompt and emphatic refusal by the officers of the Company, who quoted figures showing that the earnings and operating expenses on each line would not warrant any increase of wage, but raised no objection to the Superintendent assisting in the formation of working articles to cover each line, and its switching facilities and terminals.

The Board after entering on the consideration of the working articles and a discussion of the same with the Superintendent and Master Mechanic of the C. N. O., and the representative of the engineers on that line, found that it would be quite impossible to deal intelligently with and decide and report satisfactorily upon the many questions arising out of and embraced in the dispute, either as to wages or working articles, without a better knowledge of the different lines of railway—the switching points, terminals, and provisions made for the comfort of the men at specified places, and as the Company offered transportation and other facilities for the convenience of the Board and witnesses, and as much inspection work would not materially interfere with the consideration and composition of the working articles, and as very material evidence could be obtained at the least possible expense, and for other good reasons, the Board decided to make the inspection so strongly pressed for by both parties.

The inspection of the three different roads, and the switching facilities and terminals, and the discussion of the different matters with the engineers on each of the lines visited, including the examination of the places provided for the comfort of the engineers, engaged the attention of the Board for some days, but in the opinion of your Board this was time spent most profitably employed and resulted in the Board being able to recommend and advise as to the working articles and the application thereof to the three lines, to the entire satisfaction of all parties concerned.

At the close of the discussion upon the working articles, and after the evidence had been taken, the Superintendents of the different lines applied to the Board to be permitted to introduce a number of rules described as "Duties of Engineers," but as the Companies had not filed, in compliance with section 19 of the Act, any statement in reply to the application of the engineers, and as such request came at a very late period in the investigation, and was strongly objected to by the engineers, the same was not granted for the reason that it was considered it would greatly prolong the proceedings, and embarrass the engineers, and was not, in the opinion of the Board, any part of the dispute legally referred to them, and to allow the introduction of a further set of rules at such a time would, in the face of the objection, lead to injustice. The Board further begged to point out that all parties have ample protection

in a fair compliance with the plain and explicit provisions of the Act in setting forth their respective demands and answers, which are intended to outline the dispute referred to any Board under the Act.

The Board finds from the inspection of the terminals and turn around points on the different lines, and the evidence submitted, that no sufficient provision had been made for the comfort of the engineers at the points where they are frequently forced to remain over night and sometimes after a long trip in most inclement weather and recommended and advise that the Companies make such provision at such terminal points as none are now provided, and better the present conditions at other well-known points in this respect, so that many of the real hardships and great exposures which the engineers and crews undergo will be materially diminished, and instructions were given to the Superintendents to comply herewith, by the Company.

At the special request of the engineers the Board have defined the word *emergency* in the working articles, as it was pointed out that, owing to the great difference of opinion between the Superintendents and engineers over such class of service so extra hazardous to the engineers, much difficulty arose, and sometimes loss of life and destruction of valuable property occurred when the engineer was ordered to run against his better judgment or incur suspension or dismissal, if he refused.

The Board have most earnestly and carefully weighed and considered the evidence and arguments presented by the parties relating to the question as to the expediency and practicability of having all lines operated under one set of working articles, and have concluded to recommend and advise that the working articles set out in schedule "A," hereto attached, shall govern on the C. N. O., and the working articles set out in schedule "B," hereto attached, shall govern and control on the C. N. Q., and the Q. & L. St. J. Ry's., and report accordingly.

As urged and requested by the parties interested, the Board made a careful and exhaustive examination of the details of the earnings and operating expenses of the three roads, and examined different officials of the Companies, as well as the engineers, together with such other witnesses as the parties presented, for the purpose of ascertaining and gathering information on the question of increasing the rates, as no advance could be made toward a settlement, and the Board were compelled to make such careful and satisfactory examination as the circumstances demanded.

The Board found from their inspection of the lines that they are each equipped with a standard type of motive power and the engineers on each line are an intelligent and efficient class of men, well qualified to discharge the responsible duties their engagement requires, and are performing the same duties, assuming the same responsibilities, and incurring similar risks to engineers on other lines of railway. It is here fair to state that the officials of the Companies have submitted to the Board in answer to the demand for increased wages by the engineers that the engineers on the Q. & L. St. J. and the C. N. Q. ,in September, 1907, were granted an increase in rates, by which the Q. & L. St. J. engineers receives a slightly increased rate over the C. N. Q. engineers; the C. N. O. engineers are paid the same rate as the C N. Q. engineers, and that the Company claims they are now paying for engineers' services all that they can reasonably afford under the earning circumstances of each line, and that they are not warranted in submitting to any increase on rates to the engineers out of the earnings of any of the lines in question, and that the demands of the engineers should not be pressed in the face of these facts.

This Board have, in addition, been referred to and read with considerable advantage the report of the Board dealing with the dispute of the Grand Trunk Railway Company and its Telegraphers, bearing date of January 13th, 1908, to be found in the *Labour Gazette* of February, A.D. 1908 (page 952).

After having fully considered all the facts and circumstances presented to them, this Board have concluded that the present rates paid on the lines concerned are insufficient to enable the engineers in view of the increased cost of living, to meet the necessities of life, maintain and educate their families according to their station, are below the rates paid by many other lines for the same service, are out of proportion to the rates paid other trainmen in the same service, are not fair compensation for the risk and responsibility assumed and skill required by the men in the capacity of engineers, do not provide "a living wage," and it appeared in evidence that on the lines in Quebec, the engineers were promised an increase in the near future, when they signed the schedule last in force.

Your Board also feels that while the rates demanded in the application are paid for engineers' services on other lines, it would, having due regard to the earnings, business done, and other circumstances relied on by the Company, be quite unreasonable to grant the demand in its entirety, and also that the engineers should take into consideration the prospects and opportunities on these newer lines for promotion, which it does appear will give opportunities for advancement that are not so easily obtainable on the older roads, and which prospects and opportunities to some extent entered into the consideration of the engineers when they took service at the present rates. This Board begs to report that schedule "C," hereto annexed, sets forth fair and proper rates to be paid the engineers for their services on the lines of railway under consideration.

This Board recommends that the working articles in schedules "A" and "B" hereto shall go into force and effect forthwith, and the rates relating to freight, mixed, snow plow, way freight, work trains, and for all other services, including passenger service, as set out in schedule "C," hereto, shall go into force and effect from and after the first day of January, A.D. 1909.

This Board further begs to report that they have entered upon this inquiry, conducted the investigation, and after a full and careful deliberation upon, and consideration of, the evidence and arguments presented, on behalf of all parties, have arrived at the conclusions set forth in this report.

Herewith is returned the evidence, papers filed, and other proceedings had and taken before the Board, including the oaths of office and the statements required by statute.

Dated this 12th day of November, 1908, A.D.

(Sgd.) R. D. GUNN,
Chairman.

(Sgd.) J. HARVEY HALL,

(Sgd.) F. H. RICHARDSON.

SCHEDULE "A"

TO THE REPORT HEREWITH ATTACHED—WORKING ARTICLES.

Emergency, wherever used in these articles, shall be construed to mean a duty or service necessary to prevent impending serious loss or irreparable damage to person or property; (*b*) Any special circumstance unexpectedly arising which engineer performing the service and official agree creates an emergency.

1. Road engineers will be paid for switching at terminal and turnaround points at through freight rates, except on specified runs and as otherwise provided for; time to count from the time the engine is ordered until switching is completed; each six minutes to count one mile switching tickets to be certified to by agent, conductor, or yardmaster.

(*b*) 100 miles or ten hours to constitute a day, overtime pro rata.

2. Engineers tied up between terminals, whether engine dead or alive, will be paid full time until relieved of duty and supplied with conveyance to terminal, when dead heading mileage only will be paid.

3. An engineer in charge of an engine ordered over any section (not under construction) with which he is not familiar, shall be furnished with a competent pilot, in addition to engine crew.

4. Engineers will not be required to haul any cars when running engine extra, except water car.

(*b*) Engineers will not be required to let engine in and out of shop track, except when running light.

5. Engineers assigned to snow plow service shall be considered as held for special service, and shall receive one day's pay for the first ten hours of each twenty-four hours so held. If held for less than ten hours for such service, engineers will be paid pro rata per hour. Tenders for all engines handling snow plows are to be covered with tarpaulin, and equipped with slide curtains on back boards.

(*b*) Except in cases of emergency, engineers pushing snow plows will not be required to haul any cars excepting necessary cars containing coal supply and boarding cars for workmen.

6. Engineers taken off their trains between terminals for work train service, and continuing their original trip afterwards, will be paid at work train rate from the time engine was taken off train until time of continuing trip commences; such time to be deducted when computing overtime.

7. Engineers taking engine out of shop on trial trip will be paid 100 miles for such services, but must leave engine equipped for road service, and will be paid overtime if such time extends over ten hours.

8. Engineers responding to call for train which is afterwards cancelled will be paid twenty-five miles, but in case they are held under orders for a period exceeding two hours and thirty minutes, they will be paid pro rata for the time ordered, and will stand first out, except when 100 miles have been made, when they will stand last out.

9. Engineers will be paid actual mileage for doubling. Engineers will be paid not less than ten miles when ordered to double, or at regular doubling points, but doubling time to be deducted when computing overtime.

10. Engineers on regular runs shall lose no time through being held for special service.

11. Road Engineers making less than 100 miles will be paid for 100 miles, but will be liable for further service to the extent of ten consecutive hours, and the rate of one hour for each ten miles.

(*b*) Road Engineers ordered for yard service only will be paid not less than five hours; over five hours, pro rata. If ordered for more than one day's yard work, switching rates will be paid with a minimum of ten hours per day.

(*c*) Road Engineers relieving regularly assigned engineers will be paid switching rate.

12. Engineers held away from home stations for engines will be paid ten miles per hour at minimum passenger engineer's rate for the last ten hours, or portion thereof, in every 24 hours so held, less any mileage or time otherwise paid for during said 24 hours.

13. Engineers' time on work trains will count from the time work train was ordered, ten hours or less to constitute one day; overtime pro rata, but will be allowed thirty minutes for getting engine ready. Engineers on work train service, when laid up away from terminal points, will be paid one day for each day so held; engineers to be notified on Saturday if required the following day. When work trains are required to run to and from work, mileage at freight rates will be allowed, time so occupied not to be included in time paid for at work train rates. Engineers going on work train will be notified 24 hours previously. Suitable sleeping quarters will be furnished engineers, including mattresses and

blankets. Engineers will be allowed time for meals at reasonable hours, and will be given transportation and allowed to go home Sunday on obtaining permission, which will be given when such will not interefere with work or service. Work trains will be manned by the youngest engineer on assigned engine, but the oldest man on freight may have same by applying, if he considers it preference. Engineers will be paid at least one hour a day when tied up away from terminals for repairs to engine. Time ticket to show work performed.

14. Engineers on freight trains will be given reasonable time for meals on advising despatcher in due time. Time occupied to be deducted when computing overtime. Engineers on switch engines working within their yard limits will not be required to remain on duty over six hours without a meal, and if held longer, they will first be allowed thirty minutes off and paid for one hour.

15. Engineers will not be required to leave terminal until they have had at least eight hours' rest. Such rest must be booked on arrival upon advice to despatcher. Trains may be laid up between terminals for engineers to obtain rest after they have been 15 consecutive hours on duty upon advice to train despatcher, but if despatcher will cut out all way work and switching trains may be taken through to terminals, engineer to be judge of his own condition.

16. Engines will be supplied with coal, sand and water by engine house staff at terminals, but engineers will be responsible for seeing engines are supplied. Engines running through terminals where round house staff is employed, whether on round trip or over more than one section, will have coal shovelled ahead and fire and ash pan cleaned by roundhouse staff when necessary.

17. Engineers will report time of fireman with their own, and when time is not allowed as per time slip, the time slip will be returned for correction. Mileage to be computed on actual time card distance. Time of engineer to commence thirty minutes before leaving time specified by time card or call book, but such time to be used in getting engine ready, and will end when engineer registered in shop book.

18. Switch engines will be manned by the oldest engineer, if considered preference by him. In event of reduction of force, engineers will be reduced according to their standing on seniority list, except in case of engineers being incapacitated, so that they could not perform on road service, in which case they will be given preference in yard service. Unless incapacitated, engineers holding switching engines for over one year will lose road rights.

19. Engineers, excepting on construction trains, shall not be required to run tender first during severe or inclement weather, or after dark, except in case of emergency. (Local conditions to be regarded.)

20. Hostlers will do roundhouse and shop switching, and will be allowed reasonable time for meals. Engineers desiring position as hostler will receive preference.

21. Engineers in freight or passenger service will run first in first out of their respective districts. Engineers assigned to regular runs will be entitled to any engine placed on such run. Extra men will run first in first out. When a temporary vacancy occurs for over ten days in freight or passenger service, the oldest extra man will be entitled to it; for a less period, the extra man catching it will retain it until the regular man returns. The oldest available engineer in freight service will fill a temporary vacancy in passenger service.

22. Engineers on regularly assigned runs will not be compelled to run freight when their engine is ordered out for the same, except when the time bill or delayed train makes it necessary to run engine to other end of division to take up opposite regular run, or when no other engine or crew available.

23. Engineers on assigned runs will be called between the hours of 9 p.m. and 8 a.m.

24. Senior rates shall be paid promoted engineers after one year's service; hired engineers after six months' service, if satisfactory.

25. Engineers within one mile of roundhouse will be called (except as provided for in article 23) as nearly as possible two hours before departure of trains, and sign call book, which will show leaving time of train, and will be on duty 45 minutes before departure of train. This time to be used in getting engine ready. Engineers on through regular runs will have engine ready to take out on departure time.

26. The Engineer of any assigned engine held in shop seven days or more for repairs will be entitled to the youngest man's assigned engine on that district until his regularly assigned engine comes out.

27. Passenger engineers delayed two hours or over on their engine at terminals before commencement of trip will be paid for such time at schedule rate, same to be deducted in computing overtime. Passenger engineers detained on their engines at Toronto, Montreal or Quebec over thirty minutes will be paid one mile for every six minutes so held; less than thirty minutes not to be counted.

28. Any engineer assigned to a regular engine will be allowed to re-take such engine if same is not returned to him in four days, provided engine was lost through sickness, booking rest or suspension. No dead head mileage to be paid in either case, and engineer relieving will be returned to home station at once.

29. At stations where no regular force is provided, engineers will be paid five miles for turning and properly housing such locomotives day and night.

30. Engineers in accordance with seniority list will have choice of runs out of home station at change of time card, but in case of change of time card dis-

continuing their run, engineer so affected will have the choice of any run not occupied by senior men. When vacancy occurs or new runs are created, they shall be advertised, and the senior men applying for same shall be entitled to them.

31. Storm windows shall be kept in front of cab in cold weather. Cabs will be furnished with suitable boxes for storing clothing, and equipped with backboard slide curtain and wide curtains. Engines to be inspected by shop force when covered by snow or frozen up, if booked. Engineers assigned to regular runs will set up wedges on all engines, excepting where booked or where pool is maintained. Hose and brakes to be in working order.

32. Engineers will be paid through freight rates for entire trip when required to handle more than three freight cars on passenger trains, and in the event of freight or Company's material being unloaded off through freight or extra at three or more places on trip, it will constitute a way freight train.

33. Engineers will be paid thirty minutes preparatory time for getting engine ready before going out on run. Yard engineers required to work over eight miles outside of station will be paid at through freight rates.

34. In all difficulties and disputes arising out of any part of this schedule between the officials and any engineer, the engineers' committee shall represent the engineer or engineers, except in the event of an engineer alleging a personal grievance, in which case he may present his case and be assisted therein by any other engineer on same line, if he desires; but the decision arrived at in such case shall not form a precedent, or be binding on the engineer's committee in any proceedings taken by them on the same or any other case.

35. When an engineer is suspended or dismissed, he will be advised of reason for such action, and a full and impartial investigation will be held, and engineer advised of decision within ten days. Engineer will be notified to be present at such investigation, and may be accompanied by another engineer. He will, if desired, be given a carbon copy of report of his signed evidence. Should the investigation prove him blameless, he will be reinstated and paid for time lost, one day for each consecutive 24 hours at through freight minimum engineer's rates. Any appeal from such decision must be made in writing by the engineer through his locomotive foreman, within ten days after he has been advised of such decision. In case of doubt, engineer will not be suspended until his case has first been investigated.

36. Engineers accepting official position in Company's service will retain their rights on the seniority list.

37. When an engineer resigns or is dismissed, he shall be given his pay and given a certificate of service, stating time of service and in what capacity employed, within ten days from date of dismissal or resignation.

38. Engineers will date on seniority list when regularly assigned as such. First trip ticket to be counted after being regularly assigned, at which time they will ascertain their standing thereon and register complaint if any. After three months no complaint will be recognized.

39. In case of a meeting or conference being desired between the officials of the Company and a committee of engineers, a written notice stating the nature of the matter to be considered will be forwarded to the master mechanic, who will, as nearly as possible, fix a date and time at which a conference may be held.

40. No more engineers will be retained in the service than are necessary to handle the business with safety and despatch. Master mechanics to decide after conferring with engineers' committee.

41. Comfortable sleeping houses with wash rooms in connection will be provided at terminals, supplied with mattresses, blankets and pillows, free of charge, which shall be under the control of locomotive foreman.

42. Any complaint made against engineers in work train service will not be sufficient cause for engineer's permanent removal until such complaint has been investigated by a representative of the mechanical department. This is to apply to men loaned temporarily to construction department.

43. Engineers hired hereafter by construction department, if transferred to operating department, will hold date on seniority list from time of such transfer; transfers from operating department to construction department will hold original date on seniority list.

44. Engineers will not be granted leave of absence for a longer period than six months, unless caused by reduction of staff or sickness, without losing seniority rights.

45. Engineers assigned to regular runs and to switching engines will be considered off duty from the time relieved at engine house until required for their regular duties, but when such men are available and are called in cases of emergency, they must turn out promptly. Men may follow assigned engines.

46. All complaints made by engineers against firemen must be made in writing.

47. Above articles and rates will not be varied unless by consent after thirty days' notice.

(Sgd.) R. D. GUNN,
F. H. RICHARDSON,
J. HARVEY HALL.

SCHEDULE "B"

TO THE REPORT HEREWITH ATTACHED—WORKING ARTICLES.

Emergency, wherever used in these articles, shall be construed to mean a duty or service necessary to prevent impending serious loss or irreparable damage to person or property; (*b*) Any special circumstance unexpectedly arising which engineer performing the service and official agree creates an emergency.

1. Road Engineers will be paid for switching at terminal and turnaround points at through freight rates, except on specified runs and as otherwise provided for; time to count from the time the engine is ordered until switching is completed, each six minutes to count one mile, switching tickets to be certified to by agent, conductor or yardmaster.

(*b*) 100 miles or ten hours to constitute a day; overtime pro rata.

2. Engineers tied up between terminals, whether engine dead or alive, will be paid full time until relieved of duty and supplied with conveyance to terminal, when dead heading mileage only will be paid.

3. An engineer in charge of an engine ordered over any section (not under construction) with which he is not familiar, shall be furnished with a competent pilot, in addition to engine crew.

4. Engineers will not be required to haul any cars when running engine extra, except water car.

(*b*) Engineers will not be required to let engine in and out of shop track, except when running light.

5. Engineers assigned to snow plow service shall be considered as held for special service, and shall receive one day's pay for the first ten hours of each twenty-four hours so held. If held for less than ten hours, for such service engineers will be paid pro rata per hour. Tenders for all engines handling snow plows are to be covered with tarpaulin, and equipped with slide curtains on back boards.

(*b*) Except in cases of emergency, engineers pushing snow plows will not be required to haul any cars excepting necessary cars containing coal supply and boarding cars for workmen.

6. Engineers taken off their trains between terminals for work train service, and continuing their original trip afterwards, will be paid at work train rate from the time engine was taken off train until time of continuing trip commences; such time to be deducted when computing overtime.

7. Engineers taking engine out of shop on trial trip will be paid 100 miles for such service, but must leave engine equipped for road service, and will be paid overtime if such time extends over ten hours.

8. Engineers responding to call for train which is afterwards cancelled will be paid twenty-five miles, but in case they are held under orders for a period exceeding two hours and thirty minutes, they will be paid pro rata for the time ordered, and will stand first out, except when 100 miles have been made, when they will stand last out.

9. Engineers will be paid actual mileage for doubling. Engineers will be paid not less than ten miles when ordered to double, or at regular doubling points, but doubling time to be deducted when computing overtime.

10. Engineers on regular runs shall lose no time through being held for special service.

11. Road engineers making less than 100 miles will be paid for 100 miles, but will be liable for further service to the extent of ten consecutive hours, and the rate of one hour for each ten miles.

(*b*) Road Engineers ordered for yard service only will be paid not less than five hours; over five hours, pro rata. If ordered for more than one day's yard work, switching rates will be paid with a minimum of ten hours per day.

(*c*) Road Engineers relieving regularly assigned engineers will be paid switching rate.

12. Engineers held away from home stations for engines will be paid ten miles per hour at minimum passenger engineer's rate for the last ten hours, or portion thereof, in every 24 hours so held, less any mileage or time otherwise paid for during said 24 hours.

13. Engineer's time on work trains will count from the time work train was ordered, ten hours or less to constitute one day; overtime pro rata, but will be allowed thirty minutes for getting engine ready. Engineers on work train service, when laid up away from terminal points, will be paid one day for each day so held; engineers to be notified on Saturday if required the following day. When work trains are required to run to and from work, mileage at freight rates will be allowed, time so occupied not to be included in time paid for at work train rates. Engineers going on work train will be notified 24 hours previously. Suitable sleeping quarters will be furnished engineers, including

mattresses and blankets. Engineers will be allowed time for meals at reasonable hours, and will be given transportation and allowed to go home Sunday on obtaining permission, which will be given when such will not interfere with work or service. Work trains will be manned by the youngest engineer on assigned engine, but the eldest man on freight may have same by applying, if he considers it preference. Engineers will be paid at least one hour a day when tied up away from terminals for repairs to engine. Time ticket to show work performed.

14. Engineers on freight trains will be given reasonable time for meals on advising despatcher in due time. Time occupied to be deducted when computing overtime. Engineers on switch engines working within their yard limits will not be required to remain on duty over six hours without a meal, but if held longer, they will first be allowed thirty minutes off and paid for one hour.

15. Engineers will not be required to leave terminal until they have had at least eight hours' rest. Such rest must be booked on arrival upon advice to despatcher. Trains may be laid up between terminals for engineers to obtain rest after they have been 15 consecutive hours on duty upon advice to train despatcher, but if despatcher will cut out all way work and switching trains may be taken through to terminals, engineer to be judge of his own condition.

16. Engines will be supplied with coal, sand and water by engine house staff at terminals, but engineers will be responsible for seeing engines are supplied. Engines running through terminals where roundhouse staff is employed, whether on round trip or over more than one section, will have coal shovelled ahead and fire and ash pan cleaned by roundhouse staff when necessary.

17. Engineers will report time of firemen with their own and when time is not allowed as per time slip, the time slip will be returned for correction. Mileage to be computed on actual time card distance. Time of engineer to commence thirty minutes before leaving time specified by time card or call book, but such time to be used in getting engine ready, and will end when engineer registered in shop book.

18. Switch engines will be manned by the oldest engineer if considered preference by him. In event of reduction of force, engineers will be reduced according to standing on seniority list, except in case of engineers being incapacitated so that they could not perform on road service, in which case they will be given preference in yard service. Unless incapacitated, engineers holding switching engines for over one year will lose road rights.

19. Engineers, excepting on construction trains, shall not be required to run tender first during severe or inclement weather or after dark, except in case of emergency. (Local conditions to be regarded.)

20. Hostlers will do roundhouse and shop switching, and will be allowed reasonable time for meals. Engineers desiring position as hostler will receive preference.

21. Engineers in freight or passenger service will run first in first out of their respective districts. Engineers assigned to regular runs will be entitled to any engine placed on such run. Extra men will run first in first out. When a temporary vacancy occurs for over ten days in freight or passenger service, the oldest extra man will be entitled to it; for a less period, the extra man catching it will retain it until the regular man returns. The oldest available engineer in freight service will fill a temporary vacancy in passenger service.

22. Engineers on regularly assigned runs will not be compelled to run freight when their engine is ordered out for the same, except when the time bill or delayed train makes it necessary to run engine to other end of division to take up opposite regular run, or when no other engine or crew is available.

23. Engineers on assigned runs will be called between the hours of 9 p.m. and 8 a.m.

24. Senior rates shall be paid promoted engineers after one year's service; hired engineers, after six months' service, if satisfactory.

25. Engineers within one mile of roundhouse will be called (except as provided for in article 23), as nearly as possible two hours before departure of trains, and sign call book, which will show leaving time of train, and will be on duty 45 minutes before departure of train. This time to be used in getting engine ready. Engineers on through regular runs will have engine ready to take out on departure time.

26. The Engineer of any assigned engine held in shop seven days or more for repairs will be entitled to the youngest man's assigned engine on that district until his regularly assigned engine comes out.

27. Passenger engineers delayed two hours or over on their engine at terminals before commencement of trip will be paid for such time at schedule rate, same to be deducted in computing overtime. Passenger engineers detained on their engines at Toronto, Montreal or Quebec over thirty minutes will be paid one mile for every six minutes so held; less than thirty minutes not to be counted.

28. Any engineer assigned to a regular engine will be allowed to re-take such engine if same is not returned to him in four days, provided engine was lost through sickness, booking rest or suspension. No dead head mileage to be paid in either case, and engineer relieving will be returned to home station at once.

29. At stations where no regular force is provided, engineers will be paid five miles for turning and properly housing such locomotives day and night.

30. Engineers in accordance with seniority list will have choice of runs out of home station at change of time card, but in case of change of time card discontinuing their run, engineer so affected will have the choice of any run not occupied by senior men. When vacancy occurs or new runs are created, they shall be advertised, and the senior men applying for same shall be entitled to them.

31. Storm windows shall be kept in front of cab in cold weather. Cabs will be furnished with suitable boxes for storing clothing, and equipped with backboard slide curtains and wide curtains. Engines to be inspected by shop force when covered by snow or frozen up, if booked. Engineers assigned to regular runs will set up wedges on all engines, excepting where booked or where pool is maintained. Hose and brakes to be in working order.

32. Engineers will be paid through freight rates for entire trip when required to handle more than three freight cars on passenger trains, and in the event of freight or Company's material being unloaded off through freight or extra at three or more places on trip, it will constitute a way freight train.

33. Engineers will be paid thirty minutes preparatory time for getting engine ready before going out on run. Yard engineers required to work over eight miles outside of station will be paid at through freight rates.

34. In all difficulties and disputes arising out of any part of this schedule between the officials and any engineer, the engineers' committee shall represent the engineer or engineers, except in the event of an engineer alleging a personal grievance, in which case he may present his case and be assisted therein by any other engineer on same line, if he desires; but the decision arrived at in such case shall not form a precedent, or be binding on the engineer's committee in any proceedings taken by them on the same or any other case.

35. When an engineer is suspended or dismissed, he will be advised of reason for such action, and a full and impartial investigation will be held, and engineer advised of decision within ten days. Engineer will be notified to be present at such investigation, and may be accompanied by another engineer. He will, if desired, be given a carbon copy of report of his signed evidence. Should the investigation prove him blameless, he will be reinstated and paid for time lost, one day for each consecutive 24 hours at through freight minimum engineer's rates. Any appeal from such decision must be made in writing by the engineer through his locomotive foreman, within ten days after he has been advised of such decision. In case of doubt, engineer will not be suspended until his case has first been investigated.

36. Engineers accepting official position in Company's service will retain their rights on the seniority list.

37. When an engineer resigns or is dismissed, he shall be given his pay and given a certificate of service, stating time of service and in what capacity employed, within ten days from date of dismissal or resignation.

38. Engineers will date on seniority list when regularly assigned as such. First trip ticket to be counted after being regularly assigned, at which time they will ascertain their standing thereon and register complaint if any. After three months no complaint will be recognized.

39. In case of a meeting or conference being desired between the officials of the Company and a committee of engineers, a written notice stating the nature of the matter to be considered will be forwarded to the master mechanic, who will, as nearly as possible, fix a date and time at which a conference may be held.

40. No more engineers will be retained in the service than are necessary to handle the business with safety and despatch. Master mechanics to decide after conferring with engineers' committee.

41. Comfortable sleeping houses with wash rooms in connection will be provided at terminals, supplied with mattresses, blankets and pillows, free of charge, which shall be under the control of locomotive foreman.

42. Any complaint made against engineers in work train service will not be sufficient cause for engineer's permanent removal until such complaint has been investigated by a representative of the mechanical department. This is to apply to men loaned temporarily to construction department.

43. Engineers hired hereafter by construction department, if transferred to operating department, will hold date on seniority list from time of such transfer; transfers from operating department to construction department will hold original date on seniority list.

44. Engineers will not be granted leave of absence for a longer period than six months, unless caused by reduction of staff or sickness, without losing seniority rights.

45. Engineers assigned to regular runs and to switching engines will be considered off duty from the time relieved at engine house until required for their regular duties, but when such men are available and are called in cases of emergency, they must turn out promptly. Men may follow assigned engines.

46. All complaints made by engineers against firemen must be made in writing.

47. Above articles and rates will not be varied unless by consent after thirty days' notice.

(Sgd.) R. D. GUNN,
F. H. RICHARDSON,
J. HARVEY HALL.

SCHEDULE " C."

TO THE REPORT—ENGINEER'S RATES OF PAY.

Passenger trains, per 100 miles or per day of 10 hours, overtime pro rata.

	Engineers.	
	Sen.	Jun.
Consolidated engines	$3.40	$3.10
Mogul, Atlantic, Pacific, 10 wheeler, 110% or over	3.25	2.95
Mogul, Atlantic, Pacific, 10 wheeler, 75 to 110%..	3.15	2.85
All other engines	3.15	2.85
Freight, mixed and snow plow trains, per 100 miles, or per day of 10 hrs., overtime pro rata.		
Consolidation engines	3.75	3.40
Mogul, Atlantic, Pacific, 10 wheeler, 110% or over	3.60	3.25
Mogul, Atlantic, Pacific, 10 wheeler, 75 to 110%..	3.50	3.15
All other engines	3.40	3.05
Way Freight Trains, per 100 miles, or per day of 10 hrs., overtime pro rata.		
Consolidation engines	4.05	3.70
Mogul, Atlantic, Pacific, 10 wheeler, 110% or over	3.90	3.55
Mogul, Atlantic, Pacific, 10 wheeler, 75 to 110%..	3.80	3.45
All other engines	3.75	3.40
Work Trains, per 100 miles or per day of ten hours, overtime pro rata.		
Consolidation engines	3.45	3.10
Mogul, Atlantic, Pacific, 10 wheeler, 110% or over	3.30	2.95
Mogul, Atlantic, Pacific, 10 wheeler, 75 to 110%..	3.20	2.85
All other engines	3.10	2.75

Switching, per day of ten hours or less, $3.00.
Hostlers, per day of ten hours or less, $2.40.
Piloting, per 100 miles or ten hours, engineer's rates as per class of engine.
Light running, freight rates.

SPECIAL SERVICE.

"When engineers are required to dead-head over any portion of the road on orders of their superior officers to take engine or runs, they shall receive one-half schedule rate when dead-heading on passenger, and full rate when dead-heading on freight."

Watching and caring for engine per hour, 30c.

Held for special service, if time lost, 10 hours to be allowed per day of twenty-four hours, 30c.

Attending court at Company's request, if time lost, 10 hours to be allowed per day of twenty-four hours, 30c.

(Sgd.) R. D. GUNN,
J. H. HALL,
F. H. RICHARDSON.

XVIII.—APPLICATION FROM EMPLOYEES OF THE QUEBEC HEAT, LIGHT AND POWER COMPANY OF QUEBEC, QUE.—BOARD ESTABLISHED—AGREEMENT CONCLUDED ON ALL POINTS.

Application received—September 3, 1908.
Parties concerned—Quebec Heat, Light and Power Company, Quebec, Que., and its employees.
Applicants—Employees.
Nature of industry concerned—Street railways.
Nature of dispute—Alleged wrongful dismissal of certain employees.
Number of employees affected—Directly 2, indirectly 114.
Date of constitution of Board—
Membership of Board—Mr. W. H. Moore, Toronto, Ont., appointed on the recommendation of the employers; Mr. Omer Brunet, Quebec, Que., appointed on the recommendation of the employees. An agreement was reached on all points before a Chairman for this Board had been appointed.
Report received—October 6, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

The cause of the dispute in this case was alleged to be the dismissal of Mr. Henry O'Neil from the employment of the Quebec Heat, Light and Power Company for alleged irregularities. It was stated on behalf of Mr. O'Neil that these irregularities had not occurred, and that the real ground of difference between the Company and the men was the position taken on the part of the Company with regard to the Union to which the men belonged, and of which O'Neil was president. It was alleged also that Mr. Arthur Roy, another employee, had been improperly dismissed because of irregularities alleged to have been committed by him as an employee of the Company during the Tercentenary fetes. These irregularities also, it was contended by the employees, had not occurred.

The Minister proceeded with the establishment of a Board, appointing, on the recommendation of the Company, Mr. W. H. Moore, of Toronto, and on the recommendation of the employees, Mr. Omer Brunet, of Quebec. Shortly after the appointment of Messrs. Moore and Brunet, the Department was informed that steps were being taken by these gentlemen looking to a settlement of the matter as between themselves, and that there was every probability of an amicable arrangement between the disputants being reached in this way. Under the circumstances, the Minister refrained for a few days from proceeding with the final constitution of the Board, and on October 6, a joint statement from Messrs. Moore and Brunet was received in the Department, recommending a course suitable for a settlement of the differences. The joint statement recommended the reinstatement of O'Neil on account of his

general good record, without, however, admitting that the action of the manager of the Company with regard to him had been in any respect improper; and in the case of Roy, found that the matter had never been brought before the superior officers of the Company, or an attempt made to adjust the grievances named on his behalf, and that it did not in consequence appear to be proper to make any finding in his case. The Department transmitted copies of the joint statement to the representatives of the two parties of the dispute, and requested from them respectively a statement as to the attitude of the parties with respect to the acceptance of the same as a basis of settlement. Letters were received from the representatives of each party accepting the terms recommended in the joint statement as a basis of settlement, the letters received being respectively as follows:—

From the Quebec Railway, Light and Power Company.

QUEBEC, October 9, 1908.

F. A. ACLAND, ESQ.,
Acting Deputy Minister of Labour, Ottawa.

Dear Sir:

I have to acknowledge the receipt of your letter of the 6th inst., enclosing copy of a joint statement from the members appointed under the Industrial Disputes Investigation Act, 1907, to enquire into certain matters with reference to the dispute between the Company's employees and the Company, and in reply, beg to state that the recommendation and the conclusion arrived at by Messrs. Moore and Brunet are perfectly satisfactory and that the recommendations have been carried out.

I desire to thank you, as well as the Honourable the Minister of Labour, for your kindly consideration in this matter.

Yours truly,

(Signed) EDW. A. EVANS,
General Manager.

From the Employees.

(translation) QUEBEC, October 9, 1908.

F. A. ACLAND, ESQ.,
Acting Deputy Minister of Labour and Acting Registrar
of Boards of Conciliation and Investigation, Ottawa, Ont.

Sir:

I have the honour to acknowledge receipt of your letter of the 6th containing the joint report of the members of the Board of Conciliation and Investigation established with reference to the matter of Motormen O'Neill and Roy. The Brotherhood extends its sincere thanks to the Honourable the Minister of Labour for having taken our application into consideration and for having brought the matter to an arrangement so satisfactory. The employees are satisfied with the outcome of the dispute and declare that the joint recommendation contained in the report received are acceptable as a basis of settlement.

I have the honour to be, Sir,

Your obedient servant,

(Signed) T. MERCIER,
Rec. Sec. Fraternite Nationale No. 1 des Employees de Tramways Electriques de Quebec.

TEXT OF JOINT STATEMENT.

The text of the joint statement received from Messrs. Moore and Brunet was as follows:—

HONOURABLE RODOLPHE LEMIEUX,
Postmaster-General and Minister of Labour,
Ottawa.

Dear Sir,—In the matter of a dispute between the employees of the Quebec Railway, Light and Power Company and the Company which has been referred to us for settlement under the Industrial Disputes Investigation Act, we, Omer Brunet, of the city of Quebec, and W. H. Moore, of the city of Toronto, having been appointed by the employees and the Company respectively to investigate the dispute in question, beg to report as follows:—

In reference to the O'Neil Case:

1. At a meeting held in the Labour Temple in the City of Quebec on the morning of the 3rd of October, we decided to hear in a preliminary way the main facts of the dispute and to attempt if possible to bring about a conciliation of the parties.

2. Pursuant to our decision as to an attempt at conciliation we met at the office of the Company on the afternoon of the 3rd of October to hear statements from Henry O'Neil, Alfred Barret and from Edward A. Evans, General Manager of the Company.

As a result of our enquiries we find,—

1. That the statements of O'Neil and Barret are conflicting.

2. Upon the evidence that was submitted by the Manager of the Company in connection with this matter, that his action was taken solely with the intention of promoting the discipline of the Company, and the best interest of the service to the public.

3. It has been shown to our satisfaction that O'Neill is a capable employee and that his record up to and until the 29th day of June last was good.

4. In view of the good record of O'Neill, while we believe that the public interests demand that the Manager should be free as to whom he hires or dismisses for infraction of the rules, we would submit that in our opinion it would be a fair settlement of the dispute if O'Neill be reinstated in his position as motorman in the service of the Company. Such reinstatement to take place on Monday, the 5th instant.

In the case of Arthur Roy:

We find no evidence that the matter has been brought before the superior officers of the Company or any attempt made to adjust the matter with them. Under these circumstances we feel that we should not make a finding. We are of the opinion that a serious attempt should be made by the employer and employees to exhaust all efforts of settlement before applying for a ruling under the Industrial Disputes Investigation Act. This is exceedingly important in the case of public service corporations in which we realize the discipline of employees must be preserved.

Yours respectfully,

(Signed) OMER BRUNET,

(Signed) W. H. MOORE.

Dated at Quebec, October 3, 1908.

XIX.—APPLICATION FROM EMPLOYEES OF THE GALBRAITH COAL COMPANY, LTD., OF LUNDBRECK, ALTA.—BOARD ESTABLISHED —AGREEMENT CONCLUDED ON ALL POINTS.

Application received—October 19 1908.
Parties concerned—The Galbraith Coal Company, Ltd., Lundbreck, Alta., and its employees.
Applicants—Employees.
Nature of industry concerned—Coal mining.
Nature of dispute—Wages and conditions of labour.
Number of employees affected—30.
Date of constitution of Board—November 25, 1908.
Membership of Board—Charles Simister, Fernie, B.C., appointed on the joint recommendation of the other members of the Board; Mr. F. B. Smith, Edmonton, Alta., appointed on the recommendation of the Company; Mr. J. A. MacDonald, Blairmore, Alta., appointed on the recommendation of the employees.
Report received—December 14, 1908.
Result of inquiry—Agreement concluded on all points; strike averted.

The subjects of dispute in this case were stated in the application to relate to wages and general conditions of labour. The conditions demanded by the parties included the check-off system, the delivery of coal by the Company to employees at $2.50 per ton of 2,240 lbs., the sale of powder to employees at the same rates as in other mines of the district, that all miners should work as partners, and that none should be permitted to employ labourers; also various changes in the wage schedule formerly in force.

The report of the Board was signed by all three members and in the final paragraph of these findings of this report it was stated that the officials of the Galbraith Coal Company on the one hand, and the officials of the Union of the U.M.W. of A., representing the employees, on the other hand, had expressed their willingness to abide by the recommenations made in this report. The Department was also advised on January 4, 1909, by the Galbraith Coal Company of its willingness to abide by these findings.

The text of the report of the Board is as follows:—

REPORT OF BOARD.

In the matter of the Industrial Disputes Investigation Act, 1907, between the Galbraith Coal Company, Limited, and its employees, members of Local 2275, U.M.W. of A., Blairmore, Alberta.

Lundbreck, Alta., 7th Dec., '08.

Sir,—We, the undersigned members of the Conciliation Board in the matter of the above dispute, have carefully investigated the causes and beg to submit our report.

Under Clause 23 of the Act, we endeavoured to bring about a settlement. We thoroughly examined the Company's pay-rolls for the past four months and finally came to the conclusion that the whole cause of the trouble was in regard to the amount earned by the miners in room work. From this evidence it was decided to make an examination of the mines, and if possible ascertain the cause of the trouble. This work being concluded, we were of the unanimous opinion that under the present system of working, the price per ton paid in room work was too small; the main reason of this seeming to be a double shift being worked in each room daily and the partners not working in harmony. We (the Board) beg to recommend the following course to be adopted by the Galbraith Coal Company, Limited, and their employees:

1st. All room work only to be worked single shift and where the miner fails to earn the minimum rate of wage, as stipulated in Article 3 in the agreement made between District No. Eighteen, U.M.W. of A., and the Western Coal Operators' Association, as in force at the Breckenridge & Lund Coal Mine immediately adjoining (a copy of which agreement is hereto attached), then Article Three be adhered to.

2nd. The Checkoff system be accepted by the Company as in Article One of the same agreement.

3rd. We also recommend that if the Employees decide to make an agreement with the Company then this will be on the basis of the agreements with neighboring collieries (hereto attached), which agreements end on the 31st of March, 1909.

We have interviewed the representatives of the officials of the U.M.W. of A., District No. 18, and the officials of the Galbraith Coal Company, Limited; from these parties we are assured that they are willing to abide by the recommendations of this Board.

Representative on recommendation of Employees:

(Sgd.) J. A. Macdonald,

Representative on recommendation of Galbraith Coal Co., Ltd.

(Sgd.) F. B. Smith.

Chairman of Board:

(Sgd.) Chas. Simister.

ARTICLE OF AGREEMENT.

Attached to the report was a copy bearing the signatures of the three members of the Board of the pamphlet containing the agreements existing between District No. 18, U.M.W. of A., and the Western Coal Operators' Association. Article 3 of the agreement made between the Union named and the Breckenridge and Lund Coal Company, as contained in the said pamphlet, and which constituted a part of the agreement entered into as a settlement of the present dispute was as follows:

"Any miner failing to earn the minimum rate of three dollars ($3.00) per shift owing to any abnormal conditions of his working place, shall be paid by the Company an amount sufficient to secure him the said minimum, provided he is a capable man and has done a fair day's work."

XX.—APPLICATION FROM EMPLOYEES OF THE JOHN RITCHIE COMPANY, LIMITED, BOOT AND SHOEMAKERS, QUEBEC, QUE.—BOARD ESTABLISHED — AGREEMENT CONCLUDED ON ALL POINTS.

Application received—December 17, 1908.
Parties concerned—The John Ritchie Company, Limited, of Quebec, Que., and certain employees (lasters).
Applicants—Employees and employers.
Nature of industry concerned—Boot and shoe making.
Nature of dispute—Wages and introduction of certain machinery.
Number of employees affected—Direct 27, indirectly 205.
Date of constitution of Board—December 31, 1908.
Membership of Board—Dr. Charles Coté, Quebec, Chairman, appointed on the joint recommendation of the other members of the Board; Mr. Felix Marois, Quebec, appointed on the recommendation of the employer; Mr. Zébédée Bérubé, Quebec, appointed on the recommendation of the employees.
Report received—February 17, 1909.
Result of inquiry—Agreement concluded before the Board on all matters in dispute, effective from February 12, 1909, to May 1, 1910; strike averted.

The cause of dispute in this case was stated to be the introduction of "pulling over" machines, the manner of operating the same and the establishment of a fair scale of wages in connection therewith. The industry in question, the manufacture of boots and shoes, is not one of the public utility class to which the Industrial Disputes Investigation Act primarily applies, and the establishment of a Board of Conciliation and Investigation could only be carried out, therefore, with the joint consent of both parties. On the same day, however, on which the Department received an application on behalf of the employees, signed by the President and Secretary respectively of L'Union Protectrice des Cordonniers Monteurs de Quebec, an application was also received from the John Ritchie Company, with the same object in view.

The two parties, in their statements to the Department, agreed that the employees, who had ceased work for a few days on account of the differences with the firm, had returned to work without change in conditions on the understanding that the dispute would be referred for settlement under the terms of the Industrial Disputes Investigation Act. The firm claimed that the employees had been offered a day wage at the rate of $12.00 per week, while learning the machines, and that the employees had worked on this basis for a brief period, and had then ceased work, demanding the same scale of wages as they had previously received for hand work, allowing nothing for the upkeep of the machine or the royalty on the same. The officer of the Bureau of Conciliation of the Province of Quebec was instrumental in securing a reference of the dispute by the parties concerned under the terms of the

Industrial Disputes Investigation Act, as above stated. The Board held various sessions in Quebec and Montreal from January 14 to February 12, making a careful examination of the processes of machinery in use in the different establishments in the two cities. The Department received the report of the Board on February 17, the same consisting of the text of an agreement signed respectively on behalf of the Company and its employees, and by the three members of the Board. Mr. John Ritchie, president of the employing Company, signed for the employer, and Mr. Elzéar Ferland, president of the union comprising the employees, signed for the latter. The effect of the report was to indicate prices to be paid for various classes of labour, the same to remain the standard of wages until May, 1910, when the agreement may be renewed, with the consent of the two parties.

TEXT OF AGREEMENT.

The following is the text, translated, of the findings of the Board, the same having been rendered to the Department in French:

Quebec, February 12, 1909.

In the matter of the Industrial Disputes Investigation Act, 1907, and in the matter of a dispute between the John Ritchie Company and L'Union Protectrice des Cordonniers Monteurs de Québec.

Before the Board of Conciliation and Arbitration established by virtue of the said law by the Honourable the Minister of Labour of Canada, and consisting of Messrs. Felix Marois, Zébédée Bérubé and Charles Eugene Coté, it has been agreed on behalf of the John Ritchie Company, by its president, Mr. John Ritchie, and on behalf of the Union Protectrice des cordonniers monteurs de Quebec by Mr. Elzéar Ferland, president of the said Union, and Mr. F. X. Galarneau, secretary, that the said parties shall accept as just and reasonable the prices below mentioned for the work known as lasting, with the assistance of the pulling over machine, of which the different operations described below have been accepted by the two parties, namely, the pulling over, assembling, which consists of putting on two coats of gum, and putting canvas or buckram in toes, and putting two tacks in the heel seat and placing insoles; trimming and beating up toes, and pulling and placing lasts on racks.

These operations concern McKay work. The prices agreed for this work are the following, namely:—

LASTING.

Nature of Work.	Price per Case.
Men's regular	$1.25
Men's patent	1.35
Boys' regular	1.20
Boys' patent	1.30
Women's work regular	1.12½
Youth's regular	1.12½
Women's and youth's patent	1.22½
Misses' work regular	1.07½
Misses' work patent	1.17½
Canvass and felt and cow hide leathers	.92

For work known as Goodyear, the different operations are as follows: The pulling over, assembling, which consists of putting two coats of gum and placing box toes in toes of uppers, and putting two tacks in heel seat, and placing upper on lasts, and pasting counters; pulling up ends of counter and tacking insoles on lasts. These different operations are accepted by both parties. The prices accepted for Goodyear work are as follows:—

Kind of Work.	Price per Case.
Patent work	$1.80
All other work	1.70

It is understood that all materials necessary for the workmen shall be brought to them at the place where they work. The above agreement is to remain good until the first of May, 1910, and will then become renewable with the consent of the two parties.

As a mark of their approval of the conditions and agreement above set forth, the two parties have placed their signatures to the same in the presence of the three members of the Board who have signed the document as witnesses.

THE JOHN RITCHIE CO., LIMITED,
per JOHN RITCHIE,
President.

ELZEAR FERLAND,
President.

F. X. GALARNEAU,
Secretary.

Witnesses:

FELIX MAROIS,
Z. BERUBE,
CHAS. E. COTE, M.D.

XXI.—APPLICATION FROM RAILROAD TELEGRAPHERS EMPLOYED ON THE LINES OF THE MICHIGAN CENTRAL RAILROAD IN CANADA—BOARD ESTABLISHED—NO CESSATION OF WORK.

Application received—December 29, 1908.
Parties concerned—Great North Western Telegraph Company of Canada, and certain Railroad Telegraphers on the Michigan Central Railroad in Canada.
Applicants—Employees.
Nature of industry concerned—Railways.
Nature of dispute—Abolition by the Great North Western Telegraph Company of Canada of commissions on commercial business on lines of the Michigan Central Railroad system.
Number of employees affected—Directly 25, indirectly 50.
Date of constitution of Board—February 8, 1909.
Membership of Board—His Honour D. McGibbon, County Judge of Peel, Chairman, appointed by the Minister in the absence of any joint recommendation from the other members of the Board; Mr. J. F. Mackay, Toronto, appointed by the Minister in the absence of any recommendation from the Great North Western Telegraph Company; Mr. J. G. O'Donoghue, Toronto, appointed on the recommendation of the employees.
Report received—March 22, 1909.
Result of inquiry—No cessation of work.

This dispute arose out of the alleged abolition of commissions paid on commercial telegraph business by the Great North Western Telegraph Company to operators along the lines of the Michigan Central Railroad in Canada.

In application of the telegraphers for the appointment of this Board it was stated that a demand was made for the restoration of these commissions at the rates formerly in force, namely, 20 per cent. and 8 per cent. on local and through business respectively, on the ground that the telegraphers are now called upon to perform work, without pay, for which they formerly received commissions as above.

It was also stated by the applicants that efforts had been made from time to time " by the representatives of the telegraphers since these commissions have been abolished, with the management of the Michigan Central Railroad Company and the Great North Western Telegraph Company to have them restored, but the management of the railroad claims to have no responsibility in the matter, and that it lies entirely at the good will of the Great North Western Telegraph Company to pay these commissions or decline to pay them, and that these commissions have not been considered at any time in fixing the salaries of the telegraphers for their services with the railroad company. The Great North Western Telegraph Company declines to restore the commission, and refers the telegraphers to the Michigan Central Railroad

Company. In the course of correspondence arising out of the application the Michigan Central Railroad Company also disclaimed all responsibility in the matter. It was asserted by the Great North Western Telegraph Company that the telegraphers in question were employed by the Michigan Central Railroad Company, and that in the handling of the business of the Telegraph Company they were subject wholly to the direction of the Railroad Company. For this reason the Telegraph Company declined to nominate any member for the proposed Board of Conciliation and Investigation.

The report as received in the Department was signed by the three members of the Board, and was subsequently accepted by the telegraphers as a basis of settlement. Mr. J. W. McMichael, Vice-President and General Manager of the Great North Western Telegraph Company of Canada, under date of April 16, notified the Department that the Company was unable to accept the findings of the Board. It was understood, however, that no cessation of work had taken place.

TEXT OF BOARD'S REPORT.

The text of the findings of the Board is as follows:—

In the matter of the Industrial Disputes Investigation Act, 1907, and in the matter of differences between the Order of Railroad Telegraphers and the Great North Western Telegraph Company.

Meetings of the Board to investigate the differences were held at Toronto. The telegraphers were represented by Messrs. David Campbell, 3rd Vice-President, Order of Railroad Telegraphers, and J. H. Staley, District Chairman, Order of Railroad Telegraphers; the G.N.W. by Messrs. Perry, Secretary of the Company, and Markey, Solicitor, and the Michigan Central Railway Company by Mr. E. C. Cattanach, Solicitor.

The telegraphers claimed that down to September 12th, 1907, they had been in the receipt of certain commissions from the G.N.W., for work performed for that Company; that at that time the relationship of employer and employee existed between them and the G.N.W. and that section 57 of the above Act required thirty days' notice before such commissions could be altered in any way; that in the absence of such notice the relationship of employer and employed still continued and they were entitled to the commissions from September 12th, 1907, to the present time. The commissions were discontinued by notice dated September 12th, to take effect from September 1st, 1907.

The representatives of the Telegraph Company, on the other hand, argued that by the notice given to the telegraphers on September 12th, 1907, the Company had entirely dispensed with the services of the men, and was therefore, no longer liable for any commissions. They referred the Board to a contract dated 1st June, 1907, by the terms of which they claimed the Michigan Central Railroad Company was obliged to furnish operators to perform the work of the Telegraph Company, and that, if any one was liable to the telegraph operators, it was the Railroad Company.

The amount in dispute would run about $600.00 to $700.00 per year. From September, 1907, to November, 1908, the Railroad Company, had apparently, voluntarily paid to the telegraphers 10 per cent. commission on work done for the Telegraph Company.

It was admitted by the representatives of the Telegraph Company that the Company was the employer of the telegraphers down to September 12th, 1907, That being the case, the Board is of opinion that until compliance with section 57 of the Act was had, the relationship of employer and employee continued, and that there has never been any severance of that relationship between the Telegraph Company and its telegraphers, and that the Telegraph Company is, therefore, liable to the telegraphers for the difference between the amount of commissions received upon the 10 per cent. basis from the Railroad Company from September, 1907, to November, 1908, and what should have been received on the old basis and for all the commissions from the latter date to the present time. The opinion of the Board is supported by a provision in the contract of June 1st, 1907, before referred to, where (see page 18 of the contract) the agreement provides as follows:—"The Telegraph Company expressly covenants and agrees that the joint Superintendent and all other persons engaged in the work in this agreement contemplated, whether provided or paid by the Telegraph Company, or the Railroad Company, shall be deemed for the purposes of this contract to be the servants of the Telegraph Company."

The Telegraph Company, therefore, by its own act, continued the relationship of employer and employee with the telegraphers.

While the Board is of opinion that it would be in the best interests of all parties concerned that the Railroad Company should be responsible to the telegraphers for the wages due to the latter (including all kinds of commissions and extra pay), both the Telegraph Company and the telegraphers expressed a preference for the old system, under which the Railroad Company paid telegraphers a regular monthly wage and the Telegraph Company paid commissions on work performed for it.

All attempts at bringing the parties together in some amicable arrangement proved futile by reason of the attitude of the Telegraph Company, which took its stand upon its rights under the contract with the Railroad Company, by which the latter Company, it claimed, was and is obliged to furnish operators for the performance of the Telegraph Company's work.

The result is that the claims of the men are found in their favour.

Inasmuch as the Railway Company has by the contract of June 1st, 1907, deliberately made itself liable to the Telegraph Company to furnish free the services paid for by commission prior to September, 1907, it should be responsible, if any person, from the date of this Report for the amounts formerly received as commissions by the telegraphers.

(Sgd.) D. McGIBBON,
Chairman.

" J. F. MACKAY,
Appointed to represent the G. N. W.

(Sgd.) J. G. O'DONOGHUE,
Appointed to represent the men.

Toronto, March 19, 1908.

XXII.—APPLICATION FROM EMPLOYEES OF THE MANITOBA CARTAGE AND WAREHOUSING COMPANY, LTD., OF WINNIPEG, MAN., BOARD ESTABLISHED—NO CESSATION OF WORK.

Application received—February 10, 1909.
Parties concerned—Manitoba Cartage and Warehousing Company, Ltd., of Winnipeg, Man., and its employees.
Applicants—Employees.
Nature of industry concerned—Transportation.
Nature of dispute—Alleged discharge of Union men.
Number of employees affected—Directly 40, indirectly 260.
Date of constitution of Board—March 2, 1909.
Membership of Board—Rev. Dr. Charles W. Gordon, D.D., Winnipeg, Chairman. Rev. Dr. Gordon was at first appointed as a member of the Board in the absence of any recommendation from the Company; Mr. Thomas J. Murray was appointed a member of the Board on the recommendation of the employees; Professor R. R. Cochrane, Winnipeg, was recommended by the other two members of the Board for appointment as third member, but in accordance with the wishes of the Board, Rev. Dr. Gordon was appointed chairman and Professor Cochrane was deemed to have been appointed on behalf of the Company.
Report received—April 1, 1909.
Result of enquiry—Strike averted.

In the application for the establishment of this Board it was stated that relations between the Manitoba Cartage and Warehousing Company and its employees had been most friendly up to about January 29, 1909, no dispute of any kind existing between them. Some time previous, however, to that date, an organizer of the Teamsters' Union had been in the city and the membership of the Union had been largely increased. The applicants asserted that, apparently, the Manitoba Cartage and Warehousing Company looked with dissatisfaction upon this effort to increase the strength of the Union and commenced about January 29 discharging employees who belonged to the Union, in most cases giving no other reason than "services no longer required; that in some cases the reason had been given that employees were members of the Union and that a statement was made that no member of the Union could work for this Company. Apparently, it was added, the sole object of the employing Company in discharging men was to break the Union, as non-union employees were engaged at once to fill their places. The Manitoba Cartage and Warehousing Company submitted that their industry was not one to which the Industrial Disputes Investigation Act could properly be applied without the joint consent of employers and employees and for this reason declined to

recommend any one for appointment to the Board. The Minister was of opinion, however, that the industry in question came within the terms of the Act, and proceeded with the constitution of the Board.

The report, which was signed by the three members of the Board, found that this dispute was due partly to mutual misunderstanding and partly to error in tactics, and that there existed at the time of the investigation no real cause of dispute between the Company and its employees. Nevertheless, on account of the peculiar nature of the differences as well as of the unwillingness of the Company to take any part in the proceedings, the task falling upon the Board was one which called for the exercise of patience and tact in a high degree, and it is satisfactory to be able to state that in the end the Company took part in the enquiry and in the examination to a certain extent of some of the witnesses.

As a result of its observations the Board found that the employees of the Manitoba Cartage Company were entirely satisfied with the terms and conditions of their employment, and that the Company was satisfied with the manner in which the employees' work had been performed. Under these circumstances the Board expressed itself as "clearly of the opinion that with these misunderstandings removed there exists no reasonable ground for a continuation of the trouble." A statement was accordingly prepared by the Board of the principles underlying just relations between employer and employed, and this statement, after full consideration, was, the Board says, frankly accepted by the parties concerned. The men, it was added, were willing to return to work, and the expectation of the Board was that harmony would shortly be restored.

In a letter, under date of April 24, the Manitoba Cartage and Warehousing Company, declared itself unable to accept the terms of the award but the Department was given to understand that no cessation of work took place as all of the former employees who desired to remain with the Company had been taken back with one or perhaps two exceptions.

TEXT OF REPORT OF BOARD.

The text of the findings of the Board is as follows:—

March 27th, 1909.

To the Honourable the Minister of Labour,

Ottawa, Ontario.

The Board of Conciliation appointed in the matter of the dispute between the Manitoba Cartage Company and its employees, begs to report as follows:—

The Board being duly constituted began its sittings on March 1st, 1909, approached the Manitoba Cartage Company with the request that

the Company accept the appointment of Professor Cochrane to sit upon the Board in the interests of the Company, in the following terms:—

March 4th, 1909.

JOSEPH LEMON, ESQ.,
General Manager,
Manitoba Cartage Co., Ltd.,
Winnipeg, Man.

My Dear Mr. Lemon:—

You may have noticed that in connection with the difficulty that has arisen between the Manitoba Cartage Company, Ltd., and its employees, the Honourable the Minister of Labour has constituted a Board of Conciliation as provided by the Industrial Disputes Investigation Act. The members of the Board are Mr. T. J. Murray, whose name was suggested by the employees of the Company, Professor Cochrane of the University of Manitoba, appointed by the Department to act upon the Board with special reference to the interests of the Company, and myself as chairman.

The Department has placed in our hands a copy of the application of the employees for the appointment of a Board of Conciliation, containing a statement of the grievances which it is claimed the employees are suffering at the hands of the Company.

A copy of this statement I send you herewith for your perusal. I should be pleased to have your opinion upon this statement, and also to have any observations you consider it proper to make. You will readily understand that it is necessary for the Board to have before it a statement of both sides of the case before any wise action is possible.

The Minister also sent down a copy of the communications that have passed between the Department and yourself in regard to this whole matter. In looking over these communications it has been clear to me that when you declined to suggest a name for the Board of Conciliation you quite misunderstood the line of action proposed by the Department. I noticed you say, for instance.

"I am directed by my Company to reply that having considered the matter, it is decided not to engage in the proposed arbitration proceedings by the appointment of an arbitrator."

and also this,

"We do not agree with the step which has been taken and are obliged to state that the Company does not admit the right to proceed to form a Board of Arbitration as proposed."

Evidently what you declined to do was to submit the question at issue between the employees and the Company, to arbitration. Now I quite agree with you that there are certain qustions between employers and employees which cannot properly be submitted to arbitration. But may I venture to point out that this is no Board of Arbitration. I would like you to notice that while in regard to authority for taking evidence, examining witnesses under oath, calling for books, papers, etc., the Board of Conciliation possess equally large powers with those assigned to a Board of Arbitration, these Boards materially differ in two important features.

1. In regard to *Constitution.*

In the Board of Arbitration there are two members, each of whom is a representative of one of the parties to the dispute. In the Board of Conciliation the members are not representatives in this sense at all.

Further, in the Board of Arbitration each party voluntarily enter into an agreement to arbitrate and chooses its representative. In the Board of Conciliation this agreement is not necessary, the Department may constitute the Board though one party may refuse to co-operate.

2. These Boards differ in regard to *Function.*

In the Board of Arbitration the attention of the Board is concentrated chiefly upon evidence with a view to arriving at an equitable decision and making a fair reward. In the Board of Conciliation the attention is directed to persons with a view to bringing them to such an attitude of mutual understanding and confidence that difficulties may be removed and harmony re-established.

Further, in the Board of Arbitration the award is binding upon the parties. In the Board of Conciliation each party is left free to accept or reject any suggestions the Board may have to offer. A Board of Conciliation may in some cases pave the way for arbitration, or in others, may render arbitration unnecessary.

It is difficult to see how any one can hesitate to avail himself of the services of a Board of Conciliation, for while it is always within a man's right to refuse to arbitrate, it is hardly conceivable that he can rightly decline conciliation.

It is in accord with my interpretation of the spirit of the Act, and in this my colleagues agree, that we should avoid as far as possible formal legal procedure, rule out all appeal to technicalities, etc., and conduct the proceedings of the Board in a friendly, common sense, business like way, keeping steadily in view our main object, the bringing of parties together in such a spirit as shall promote harmonious relations.

I venture to hope, therefore, my dear Mr. Lemon, that with the removal of your misconceptions in regard to the nature and function of the Board of Conciliation, your Company will be glad to avail itself of the good offices of the Board in restoring the harmony and mutual good feeling which I understand has always characterized the relations between your Company and its men.

I do not anticipate any lengthened proceedings, and I am convinced that with the frank and hearty co-operation of both parties, the differences may be composed and all further trouble averted.

Yours very truly,

(Signed) CHARLES W. GORDON,
Chairman.

THE COMPANY'S REPLY.

To this the Company answered as follows:—

Winnipeg, Man., March 8th, 1909.

REV. CHARLES W. GORDON, D.D.
St. Stephen's Church,
Winnipeg, Man.

My Dear Mr. Gordon:—

I am just in receipt of your letter of the 4th inst., only posted on the 6th inst., relating as to relations between the Manitoba Cartage Co., Ltd., and its employees and the proposed Board of Conciliation.

The difference of terms as to the title of the Board is not in my opinion one which in any way materially affects the nature of the proceedings, whether the Board is called the Board of Conciliation or a Board of Arbitrators.

This Company, I may say for your information and that of the members of your Board, has conducted its business at Winnipeg for twenty-seven years, during which time it has not had any difficulties with its employees, the relations having always been most satisfactory.

The grounds put forward now for invoking the Industrial Disputes Act are such that this Company, after giving the matter careful consideration, thought it was not desirable that it should take part in the proceedings. There were a number of reasons for this. In the first place it is doubtful, we are advised, as to whether the Act applies to such a Company as ours. A number of our men were laid off for what the Company considered was good and sufficient cause, and in the management of its affairs the Company naturally is opposed to having its decision on such a matter made the subject of arbitration or proceeding under the Act.

Acting on the advice of Mr. Murray, Solicitor for the men referred to, it was thought fit by a few of the men to take this matter before a department of the Government, with the view of setting the machinery of the Act in motion as against the Company with the result that your Board has been appointed, the Company declining to take any part in the proceedings, as clearly appears from the correspondence with the Department which has already taken place.

The Company would be willing under other circumstances, to welcome the intervention of such gentlemen as yourself and Prof. Cochrane in any matter which could be referred to for disposition by a Board of Conciliation or Arbitration, but under the circumstances involved in this matter and with the view of continuing to manage the Company's business free from outside dictation or interference, have come to the conclusion that the interests of the Company and its employees can be best served by declining to take part in the proceedings.

Yours truly,

(Signed) J. LEMON.

CHAIRMAN'S SECOND LETTER.

To this letter the following reply was sent:—

March 10th, 1909.

J. LEMON,
Manitoba Cartage Company,
Winnipeg, Man.

My Dear Mr. Lemon:

I beg to acknowledge the courtesy of your letter of March 8th. I regret that you cannot agree with me in regard to the nature and constitution of the Board of Conciliation, but it is not necessary to discuss this further.

I should like to express my gratification at the kindly relations which you say have existed for the past twenty-seven years between the Company and its employees, and it is this fact that gives me every confidence in hoping that those relations may be restored in a short time and without

serious difficulty. I am sorry that your Company continues to decline co-operating with the Board in an attempt to restore harmony.

As to the question of jurisdiction of the Board, that of course is beyond our province to discuss. The Government has established the Board and this is sufficient indication as to its interpretation of the applicability of the Act to your Company, and it would, therefore, be improper for us to even discuss this point. It is simply my duty to inform you that the Board is constituted and is proceeding to discharge its functions.

I notice you say that the Company has a number of reasons for declining to take part in the proceedings. We should be very pleased if you could let us have these reasons.

This evening at eight o'clock in the office of the Master of Chambers in the Court House in this city the Board of Conciliation will meet, and will proceed to investigate the alleged grievances of former employees of your Company. The Board respectfully requests the presence of yourself or of some official of the Company at that meeting. It will be your privilege to cross-examine witnesses and offer any evidence you may desire. We hope that you will see your way to accede to this request, and we beg to assure you that the Board will conduct its proceedings in a spirit of conciliation and thorough sympathy with all the interests involved.

Yours very truly,

(Sgd.) CHARLES W. GORDON,
Chairman.

The Board thereupon proceeded with its investigation. The representative of the Teamsters' Union and a number of the dismissed employees on the one hand, and the Manager, Cashier and Foreman of the Manitoba Cartage Company on the other, attended the sittings and gave cordial assistance.

After the Board had practically concluded the taking of evidence, the following statement was prepared, setting forth the history of the case and the Board's reflections and suggestions thereanent:

STATEMENT.

History of the Question from the side of the Men.

Fifteen employees of the Manitoba Cartage Company were summarily dismissed from the service of the Company without warning and without cause assigned.

Enqury at the office by some of the men dismissed elicited no information as to cause of dismissal.

The dismissed employees thereupon met and appointed a delegation to wait upon the Company. This delegation was composed of the Secretary of the Teamsters' Union and the legal adviser of the men. The delegation was referred for answer to the Company's Solicitor, but from him obtained no satisfactory reply.

The dismissal of these men occurred immediately subsequent to the institution of a vigorous attempt to revive the Teamsters' Union, and to recruit members therefor.

The men, considering that they had a grievance in thus being discharged without warning, and without cause assigned, and construing the action of the Company as hostility to the Union and as an indication of its unwillingness to have Union men in its employ, appealed to the Department of Labour for the intervention of a Board of Conciliation.

History of the Question from the side of the Company.

For twenty-seven years the Company had conducted its business in such a manner and in such a spirit as to preserve most cordial relations between the Company and its employees, and up till the present there had been no cause of general complaint on the part of the Company and no grievance on the part of the men in regard to hours, wages or conditions of work.

About the 22nd of January, 1909, there was initiated what appeared to the Company an aggressive campaign on behalf of Unionism. As this campaign proceeded, the Company considered that the methods employed were such as to hinder the Company's work, interfere with non-union men and generally to disorganize the discipline of the Company. The Company, therefore, determined to remove the supposed causes of disorder and restore discipline by dismissing those who were considered to be engaged in this campaign for Unionism. The Company was all the more strengthened in this determination by the suspicion that the sudden display of activity in the interests of Unionism was due to the visit of an organizer from the United States.

The Company further determined that its ends would be more fully accomplished if it assigned no cause for dismissal, in the expectation that in a few days the men would apply for reinstatement, and that this would furnish an opportunity for explanation of the cause of dismissal after the men would be restored.

When the deputation arrived from the men, the personnel of this deputation gave rise to the opinion that the Company was being approached by the representatives of the Union, and, therefore, the Company declined to enter into negotiations, but referred the deputation to its solicitor who declined to give any response satisfactory to the men.

OBSERVATIONS OF THE BOARD.

The Board of Conciliation offer the following observations upon the whole case:

1. The Board is gratified to find that during the whole course of the Company's existence there seems to have been nothing but the friendliest relations existing between the Company and its men, and up to this present trouble there has prevailed a feeling of mutual confidence and good will.

2. The Board is even more pleased to discover that even since the trouble has arisen there has been imported into the dispute no feeling of bitterness and no disposition to seek revenge. This has made the work of the Board much easier and and much more pleasant than it otherwise would have been and has rendered it possible for the two parties to come together again.

3. The Board is especially gratified that the Company and the men have, with the utmost courtesy and cordiality, co-operated in the effort to restore harmony.

4. The Board firmly believes that the trouble would have been averted, but for errors in judgment somewhat serious but entirely explicable on the part of both the Company and the employees.

1. On the part of the men.

(*a*) The Board is of opinion that in their enthusiastic determination to advance the interests of the Union and to secure recruits, the employees allowed themselves to encroach more than they imagined upon the rights of the Company in regard to the time, the place and the methods of the propagandum. The Board feels, and in this Union cordially agrees, that employees

cannot too carefully regard as sacred to the interests of the Company every moment of working hours and every part of the organized system under which the Company's business is operated.

(*b*) While in seeking redress of grievances the employees had a perfect right to invoke the aid of their Union, it would have been wiser if as a first move the Committee appointed to wait upon the Company should have been composed of dismissed employees. The Board is of opinion that when employees feel themselves aggrieved, the first move toward redress should be made by the men affected as a body of employees rather than as an organized Union, and that the Union should formally appear only when this first step is fruitless. In the present instance, while the Committee sent to interview the Company represented the employees and not the Union, the complexion of the Committee was such as might very properly give the Company the impression that it was being approached by the Union and not by their discharged employees.

2. On the part of the Company.

(*a*) The Board is of opinion that the Company overestimated the seriousness of the campaign carried on among their employees on behalf of Unionism, and though to the Company there seemed to be an objectionable aggressiveness on the part of some of their employees, it would have been wiser to have allowed this to pass either unnoticed or with a warning that the Company's business or the Company's men must in no way be interfered with.

(*b*) The plan of discipline adopted by the Company miscarried in one important particular, viz., the intention of the Company to explain the cause of dismissal, and the further intention to reinstate after the ends of discipline had been served, was frustrated by the trend of events, the policy adopted by the employees not giving the Company the opportunity desired to carry out its purpose. But for this unfortunate miscarrriage, the trouble might have been avoided. It would have been wiser if the Company had intimated clearly that it had no hostility to Unionism, but that it was determined to insist that Unionism should not interfere with the efficiency of its service.

CONCLUSIONS OF THE BOARD.

As a result of these observations and of the evidence obtained during the investigation, the following facts appear to have emerged:

1. There exists at present moment no real cause of dispute between the Company and its employees. The employees are entirely satisfied with the terms and conditions of their employment, and the Company is satisfied with the manner in which the employees do their work.

2. There is a most gratifying absence of any spirit of hostility between the two parties.

3. The trouble that has arisen has been due party to mutual misunderstanding and party to errors in tactics. The Board is clearly of the opinion that with these misunderstandings removed there exists no reasonable ground for a continuation of the trouble, and that each of the parties, without the slightest surrender of principle and without even the appearance of surrender of position assumed, might and should enter at once into the former friendly relations.

SUGGESTED BASIS OF AGREEMENT.

The Board, therefore, venture to suggest that the following might be accepted as by both parties as a basis of agreement:

"That there should be a clear understanding and a frank reinstatement of certain principles that underlie all just and right relations between employer and employees, viz.: on the one hand that the employer shall fully recognize the right of employees to membership in any organization they may choose; that no employee should be discriminated against on the ground of Unionism. Further, that every employee considering himself aggrieved in being dismissed, has a right to information as to the cause, and has a right to be heard either personally or through a committee in his own behalf.

On the other hand, that while employees have perfect liberty in regard to membership in the Union and in regard to promoting the interests of the Union, they have absolutely no right to use the employer's time, property or organization for the propagating of the principles of Unionism or for the securing of recruits or for any other purpose than that for which they are paid, the promoting of the business of their employer.

That while the Union must be accorded full rights to promote the welfare of its members and to guard their interests in every legitimate way, it has no right to demand that an employer shall use his influence in any way to promote the cause of Unionism, or to coerce any man into joining the Union.

The frank and full acceptance of these principles would, in the judgment of the Board, form a fair and just basis upon which the parties might come together and harmony be restored."

This statement the employees and the Company, after full consideration very frankly accepted.

After the conclusion of the investigation the Board was able to arrange that a deputation of the men dismissed should wait upon the Company to ask reinstatement. To this request the Company up to the present time has not acceded, assuming the attitude to which it has consistently adhered throughout, viz.: that while willing to assist the labours of the Board in every possible way, it must decline either to be a consenting party to its proceedings or to accept its suggestions and stating that it would be more satisfactory to the Company that the Board should finish its work and present its report, and leave the Company free to act in the manner that seemed best. This the Board decided to do, but in presenting this report to the Honourable the Minister of Labour, the Board ventures to hope that, misunderstandings have been removed and the Company and its employees having been brought together in a kindly way during these proceedings, they may now be expected to compose their differences.

All of which is respectfully submitted,

(Sdg.) CHARLES W. GORDON,
Chairman.

" R. R. COCHRANE,

" THOS. J. MURRAY,
Secretary.

APPLICATIONS WHERE PROCEEDINGS WERE UNFINISHED AT THE CLOSE OF THE FINANCIAL YEAR.

In addition to the applications received and disposed of prior to the close of the financial year, the following applications had been received concerning which proceedings were still pending on March 31, 1909:—

1. An application on behalf of railroad telegraphers, employees of the Kingston and Pembroke Railway Company, the number of employees concerned being estimated at 19 directly and 1,600 indirectly.

2. An application on behalf of the employees of the Dominion Coal Company, Glace Bay, C.B., the number of employees concerned being estimated at 3,000.

3. An application on behalf of the employees of the Nicola Valley Coal Company, Middlesboro, B.C., the number of employees concerned being estimated at 150.

LEGAL DECISIONS.

Three prosecutions for alleged infringement of the terms of the Industrial Disputes Investigation Act, 1907, were reported to the Department during the year. Under Clause 67 of the Act, in cases of prosecutions, whether a conviction is or is not obtained, it is the declared duty of the clerk of the Court before which any prosecution takes place to briefly report the particulars of such prosecution to the Registrar of Boards of Conciliation and Investigation within thirty days after it has been determined. The various cases reported to the Department were as follows:—

I.—PROSECUTION AT MICHEL, B.C.—QUESTION OF JURISDICTION TO IMPOSE PENALTIES.

A decision Act given at Michel, B.C., during the month of May, as the outcome of some industrial disturbances in the collieries of the Crow's Nest Pass Coal Company. Information was laid on behalf of the Company against James Douglas, Charles Gardner and William Whitehouse, charging them with violation of the Industrial Disputes Investigation Act by inciting and encouraging to strike. The cases were tried before Mr. J. H. McMullen, stipendiary magistrate in and for the county of Kootenay, B.C., on May 21, and on May 23, a decision was rendered by Mr. McMullen to the effect that his court had no jurisdiction in the case. The text of the decision is as follows:—

TEXT OF DECISION.

James Darbyshire, Informant.

James Douglas *et al*, Accused.

Before coming to any consideration upon the evidence adduced in support of the information it is necessary to decide the validity of the point raised by the defence agent against my jurisdiction to hear and determine the case.

The principal objection raised by Mr. MacDonald is that this is not the tribunal contemplated by the Act, for the purpose of hearing and determining an information laid under Section 60 of the said Act, which reads as follows:

60. "Any person who incites, encourages, or aids in any manner an employee to declare or continue a lockout, or any employee to go or continue on strike contrary to the provisions of this Act, shall be guilty of an offence and liable to a fine of not less than fifty dollars nor more than a thousand dollars."

As it is necessary to refer to Section 61,, I give the text of it, which is as follows:

61. "The procedure for enforcing penalties imposed or authorized to be imposed by this Act shall be that prescribed by Part XV of the Criminal Code, relating to Summary Convictions."

It is stated in Paley on convictions that the examination and punishment of offences in a summary manner by Justices of the Peace . . . . are founded entirely upon a special authority conferred and regulated by Statute, and I can find no legislation in Canada which raises this general principle of law; on the contrary, the following comments on the same question are found in Seagers' Magistrates' Manual:

" Jurisdiction is the authority which an official has by law to hear and determine and do justice between the parties in a cause or matter brought before him. It is never presumed, but must appear affirmatively in some authorizing Statute, otherwise his proceedings are absolutely void. No power or right to hear and determine a cause can be given otherwise than by some jurisdiction conferred by and emanating from sovereign authority."

It is further argued that such an information is not triable under Part XV of the Criminal Code relating to Summary Convictions and that the said Part XV does not apply to the Industrial Disputes Investigation Act except in so far as the same is especially made to do so by the provisions of Section 61, which particularly states that all the proceedings subsequent to conviction shall be governed by the provisions of Part XV of the Code. I am of the opinion that Parliament purposely excluded the operation of all the Sections of Part XV save those mentioned in Sec. 61 so that the penal clauses should be administered either by the Minister of Labour, to whom is given by virtue of Sec. 3, the general administration of the Act, or by a Board of Investigation and Conciliation created by the Act. In any event if Parliament intended that all the provisions of Part XV of the Criminal Code should apply to the Act in question it is natural to suppose that they would have so stated, instead of directing that only a portion of said provisions should apply.

My opinion is strengthened by the fact that I have read a number of the acts of a quasi criminal nature passed during the same session as that in which the Act in question was passed, as well as Acts of a similar character contained in the revised Statutes of Canada such as the Electricity Inspection Act, the Meat and Canned Foods Act, Canada Temperance Act and the Lord's Day Act, and in all cases I find that the penal clauses contain the words " on Summary Conviction" which words are lacking in Sec. 60 of this Act.

For these reasons I am of the opinion that it was not intended that offences against the said Act should be tried under Part XV of the Criminal Code and I decide accordingly. Unless I have jurisdiction under said Part XV of the Criminal Code I am of the opinion that the Act contains no other provisions whereby the information can be heard and determined by me and I decide accordingly.

The Counsel for the defence has raised a number of other objections to the proceedings before me, and if an appeal should be taken from my findings on the main question of law involved and these findings be reversed by the Appellate Court, I think that I should also dispose of the other matters so that all the important questions of law may be decided at one time by such Appellate Court.

I, therefore, find that all the remaining objections raised by the Counsel for the defence are not well taken, with the exception of that demurs which to the information on the ground that it includes more than one offence. I find that

this objection is well founded as the informations charge that the accused "did incite or encourage," etc., each of which in my opinion constitutes a separate offence.

J. H. McMULLIN,
Stipendiary Magistrate in and for the County of Kootenay.

II.—JUDGMENT IN SUPREME COURT OF ALBERTA ARISING OUT OF CHARGE OF BREACH OF AGREEMENT EFFECTED UNDER ACT.

A decision of considerable interest, arising out of alleged violation by the Strathcona Coal Company, Ltd., of Strathcona, of the findings of a Board of Conciliation and Investigation relating to a dispute between this Company and certain of its employees, was rendered by Hon. Mr. Justice Stuart, in the Supreme Court of Alberta, on June 24 and 25, 1908.

On November 13, 1907, a Board of Conciliation and Investigation was established to adjust differences between the Strathcona Coal Company, Ltd., of Strathcona, Alta., and certain of its employees. The Board consisted of Mr. Geo. S. Montgomery, Chairman; Mr. F. L. Otter, recommended by the Company, and Mr. F. H. Sherman, recommended by the employees. The number of men affected by the dispute was estimated at 40. The differences referred for investigation involved a change in the hours of labour, the men asking an eight-hour day from bank to bank; a change in the method of paying wages, the men asking weekly pay in legal tender; recognition of the United Mine Workers of America, and various changes in conditions of work in and around the mine. The Board was fully constituted on December 2, and met at Edmonton during the month. On December 28, the Department received a report from the Board showing that an agreement had been reached on all points in dispute, effective from December 23, 1907, until March 31, 1909. The agreement involved an 8-hour working day at face or place of working; semi-monthly payment of wages by cheque; supply of screened coal by the Company to its workmen at $3.25 per ton within Strathcona city limits; and full recognition of the United Mine Workers of America, with the adoption of the check-off system, and an arrangement for the settlement of local or general disputes. The agreement included also various provisions as to conditions of work. The final clause of the agreement read as follows:—

"This contract goes into effect on Monday, 23 December, 1907, and continues until March 31, 1909, provided if the Strathcona Coal Company, Limited, sell the mine, this contract will cease and terminate."

The agreement was signed by the three members of the Board and by W. E. Ross, Managing Director, for the Company, and by John R. Galvin for the employees.

In a covering letter to the Minister, accompanying the report of the Board, and dated December 23, the chairman of the Board, Mr. Geo. S. Montgomery, stated:—

"Whilst the Board was not called upon to investigate fully the matters between these parties, there is no question but that the mere fact of the Board

having been appointed by the Government, and being in session, had the effect of bringing about a reconciliation and a compromise between these parties. It is the unanimous opinion of the Board that the law is successful."

Subsequently an action was brought on behalf of the employees charging the Company with a breach of the agreement in various respects. The case was argued before the Hon. Mr. Justice Stuart, in the Supreme Court of Alberta, on June 24 and 25, Mr. H. A. Mackie appearing as counsel for plaintiffs and Mr. J. R. Lavell representing the defendant Company.

Judge Stuart delivered oral judgment in the case, the complete text of the same as furnished to the Department by the Clerk of the Supreme Court, Edmonton Judicial District, being as follows:—

I had thought at one time of reserving my judgment in this case for the purpose of giving carefully and in extenso my reasons for the judgment that I should give, because it is a matter, I have no doubt, of very great interest to a great many people in the community, and the action has been brought really, I presume, because it is of such general interest, but I do not see that any advantage can be gained by reserving that decision for the reason that my views in the matter as to the rights of the parties are quite clear, and I think I can give my reasons for the judgment I am about to give as well now as at any later time.

I may say, in the first place, that my only reason for not dismissing the United Mine Workers of America, District No. 18, from the case and from the record at the very opening of the trial, and my reason also possibly for not dismissing the action as a whole at the opening of the trial for the reasons I am going to give for dismissing it now, was because I did not want to leave the impression upon these plaintiffs, who are labouring men and members of the Trades Union, that their case was being treated unceremoniously or with contempt, and for that reason I have listened, I think, with some patience, not only to the evidence, but to the argument that has been advanced upon their behalf.

There can be no doubt in the world, as Mr. Mackie admitted at the close of his argument, that the United Mine Workers of America, District No. 18, can have no status in any court as parties plaintiff or as parties to the action at all. It is not alleged in the statement of claim that they are a body corporate, and they are not proven a body corporate. The only persons that have a right to sue in court are individuals or bodies corporate who are given that right by statute. There is the exceptional case, of course, of Trades Unions registered under the Trades Union Act. If the United Mine Workers of America, District No. 18, had been registered under The Trades Union Act, they would, according to the decision in the Taff Railway case, no doubt, have been entitled to be sued, and I think corollatively to sue in court. But it is admitted that they are not registered; therefore they are a nondescript body as far as this court is concerned, and certainly their claim, as far as this court is concerned, must be dismissed. It is true Mr. Mackie referred me to certain cases in British Columbia in which actions seem to have been brought against the Western Federation of Miners, or certain Unions of that organization, but it does not appear from the records whether or not they were registered under the Trades Union Act, and I am inclined to think from reading the reports that they were simply, after all, only representative actions, because a large number of individual defendants were

joined as well as the Federation of Miners, and I do not think that those cases furnish any authority for saying that the United Mine Workers of America, District No. 18, can bring any action, or that they have any status in court. For that reason, in respect to them the action will be dismissed with costs, if you can get them out of that organization.

Now, with respect to the individual plaintiffs, the position is a bit more serious, and there is something more to be said on their behalf. I notice, however, that the statement of claim is very peculiarly drawn. It alleges that The United Mine Workers of America, District No. 18, are a labour organization and that the other plaintiffs are coal miners, and that they made and executed the hereinafter mentioned agreement, and that up to the 27th day of February, 1908, were employees of the defendant Company and were members of District No. 18 of the United Mine Workers of America. It alleges that in pursuance of "An Act Respecting Conciliation and Labour," being chapter 96 of the Revised Statutes of Canada, 1906, certain differences between the plaintiffs and the defendant were referred to a Board of Conciliation. I am inclined to think that that allegation is made under a misapprehension, and that the reference was really made to the Act with respect to Industrial Disputes of 1907. Then it goes on to allege, as a result of that reference, that the plaintiffs and defendant entered into and executed a certain agreement which is set forth and which I need not read. The agreement, however, purports to be between the defendant Company and the employees of the Company represented by the United Mine Workers of America, District No. 18, and is really an agreement setting forth certain conditions and certain terms to which the employees of the Company and the Company itself agrees to be bound, terms with relation to the rate of payment for mining coal, and particularly the terms in article No. 5, that the Company agreed to attend to timber, water and track. Then the statement of claim says that in contravention and violation of this agreement the defendant Company did not pay the plaintiff coal miners who were working in the defendant's mine semi-monthly, which was one of the terms of the agreement, but allowed periods of five weeks to elapse without paying them; that on the 6th day of February, the defendant Company reduced the rate of payment to the plaintiff coal miners from 33 1-3 cents per car, which was the rate stipulated in the agreement, to 28 cents per car, and that the defendant Company refused to pay certain other rates of wages in respect of turning and opening rooms, etc., that the defendant Company, without any just cause or reason, and in contravention and violation of the agreement, particularly of the second paragraph thereof, discharged certain of their employees, three of the plaintiffs; and it goes on to allege that on the 25th of February, 1908, three of the plaintiffs who composed the pit committee referred to in the agreement, and the discharged plaintiffs, met the pit boss, and treating him as the agent I presume, of the defendant Company, requested reinstatement for those who were discharged, and that reinstatement was refused; that the defendant Company laid off certain of the plaintiff miners, in contravention of the agreement; that during the employment of the plaintiff coal miners, the defendant Company, in violation of the agreement, failed to keep the track in proper repair, condition and order; failed to drain the mine in proper manner, and that by reason of this failure, the plaintiff coal miners were prevented

from doing as much work and earning as much money as they otherwise could and would have done. The statement of claim further alleges that the defendant Company failed to properly and adequately timber its mine, so that the plaintiff coal miners had and were compelled to timber their own workings in the mine; that on account of that, the plaintiff coal miners were occasioned great loss of time; and it is alleged further that in consequence of these breaches by the defendant of this agreement, the plaintiffs, not saying who particularly, but the plaintiffs generally, have suffered damages thereby; and there is the claim for $90 damages per day since the 27th of February, 1908, until the date of judgment; another claim for reinstatement of the coal miners in the defendants' mine, and another claim in the alternative for damages for $90 a day during the term of the agreement; and there is another claim for additional damages for $978 on account of the failure, apparently, to keep the track and mine in proper condition and to supply timber. That is the substance of the statement of claim. I fail to see how, as that statement of claim is drawn, it can be said to set forth the cause of action in any one of these individual cases. It is not alleged that these individual plaintiffs entered into a contract to mine coal for the defendant Company, except by a very remote inference, from the words that are used, and before even I could give judgment for the individual plaintiffs, it seems to me that the statement of claim would have to be completely revised so as to contain allegations that the plaintiff, John Ordza, and the other plaintiffs, separately and individually, entered into a contract with the defendant Company to mine coal in their mine, and that on or about the 23rd day of December, 1907, the defendant Company agreed that with respect to these separate contracts made by these individual men, certain conditions and terms should apply by virtue of this agreement which is pleaded here, and that the agreement was made on behalf of each of the individual plaintiffs through persons who were their agents, viz., the persons signing it, Mr. Sherman and Mr. Galvin, and the other persons whose signatures appear. And the revised statement of claim that I have suggested would have to go on and say that those individual contracts were broken by the defendant Company in the way, no doubt, that is set forth in paragraph 9 and 10 of the statement of claim as it stands, which deal particularly with the condition of the mine and the supply of timber. But I fail to see how I could give judgment on such a statement of claim as that, unless an amendment were made along the lines I suggest. The rights of all these eighteen individual men have been placed in this record in one general statement, as if they were a corporation themselves, or perhaps as if they were partners themselves, but they are neither a corporation nor partners. Each individual man, when he went into the employment of that Company, made a separate contract of his own with that Company to mine coal for them, and for breaches thereof, if there were breaches proven, there is no doubt in the world that these men would have been entitled to sue for damages and to recover them if the evidence justified the recovery.

But even assuming that such a revision of the statement of claim were made so as to contain separate allegations in respect of each of the eighteen individual plaintiffs, there is still a question which has been raised by the defendant as to the right of eighteen individual plaintiffs to sue in one action

for the breach of eighteen separate contracts. It is quite impossible, in my view of the case, for the plaintiffs to succeed in their contention that there was one individual contract. The contract is expressed as being made between the defendant Company and the employees of the company as represented by The United Mine Workers of America, District No. 18. The particular employees are not mentioned in it; the particular plaintiffs who sue here are not mentioned in it, and it seems to me that it is quite impossible for the plaintiffs to succeed in their contention that this was one contract, a joint contract, because these eighteen plaintiffs never did jointly agree to anything with the defendant Company. They did not go in as partners or as joint contractors in any way to mine coal for the Company. They went into the employ of the defendant Company at different times. They each, when they went into the employ of the Company, made a separate contract with that Company to mine coal for them, and I do not think that those separate contracts could possibly be considered as turned into a joint contract by what happened on the 23rd day of December, 1907, that is, by this agreement that has been set forth here. The very best that can be taken out of it even for the plaintiffs is this, that on that date certain persons representing them agreed for each of the eighteen individuals that the terms and conditions set forth in this paper should govern the contract which these eighteen individual men made and entered into with the defendant Company for mining coal.

That being so, there being eighteen distinct individual contracts, the results follow that for a breach of each of those eighteen individual contracts there would be a separate and distinct right of action in the eighteen individual plaintiffs. Now, assuming that the revision of the statement of claim were made that I have suggested, we would still be face to face with the question whether these plaintiffs had any right to join in such an action as this. I have not anything to do with the policy of the law, whether the law is good law or bad law. I have simply to deal with this case under the law as it stands, and as I conceive it to be. Under the rules of practice, rule 26, the law is that a number of plaintiffs may join in the same action. But I am face to face with the interpretation of that rule which was made in the House of Lords in the case Smurthwaite vs. Hannay, which decides that that applies simply to a joinder of plaintiffs, and not to a joinder of different rights of action. There is no doubt that there are eighteen distinct rights of action in these eighteen different plaintiffs, and that the decision in Smurthwaite vs. Hannay is exactly in point, and the result of it is that those eighteen rights of action cannot be joined in one case. The defendants raised this objection, and I think that they were entitled to raise it even as late as they did, in view of the way that the action is brought, not merely throwing in The United Mine Workers of America, District No. 18, who had no status at all, but by attempting to treat the whole affair as if it were one agreement and one right of action. So that I am bound to say, even aside from the merits of the case, I do feel very much disposed, and I do intend, to decide this case on this ground of the misjoinder of so many actions in one case. It is true that it might have been inconvenient for each of these eighteen individual persons to have brought their action separately. It is true that if they had done so, an application might have been made for consolidating the actions,

and if that had been done, I presume we would have had a proper statement of claim with respect to each man's action, and we would have known what it was he claimed individually; but in view, as I say, of the way the whole thing has been thrown together, I do not think that I am treating the plaintiffs unfairly at all in insisting upon this point and giving judgment following Smurthwaite vs. Hannay. Indeed I do not think I have any power to do otherwise than I am doing when Mr. Lavell, for the defendant, raised the point. The law is there, and I have to administer it as it is. He raised the objection, and it is clearly by the House of Lords a good objection and I am bound to follow it.

I would like to say this, however, for the benefit of the plaintiffs, that this does not mean that they are to be forever pestered by this law, even if it is a bad one. The English rules have been changed, and if we had had the new English rule, which says: "All persons may be joined in one action as plaintiffs, in whom any right to relief in respect of or arising out of the same transaction or series of transactions, is alleged to exist, whether jointly, severally, or in the alternative, where if such persons brought separate actions any common question of law or fact would arise: provided that, if upon the application of any defendant it shall appear that such joinder may embarrass or delay the trial of the action, the court or a judge may order separate trials, or make such other order as may be expedient, and judgment may be given for such one or more of the plaintiffs as may be found to be entitled to, without any amendment." Then the objection that the defendant raised could not have been raised, and the plaintiffs would not have been met, at any rate, by the case of Smurthwaite vs. Hannay, upon which I am resting my present decision. There is a possibility that these rules may be revised and made more comformable to the present English practice, so that it is not a permanent condition of affairs by any means.

But to go to the merits of the case, supposing I had overlooked this objection and had agreed that these actions might have been brought jointly, or supposing I had had one of these individual plaintiffs here in an action alone, I should come to the conclusion that even then none of these individual plaintiffs could have succeeded. The plaintiffs will, therefore, have the satisfaction of knowing that I am giving judgment upon the merits of the case, as well as upon what they may think is a technicality. Even if I had been dealing, I say, with an individual action of one of these plaintiffs for damages for a breach of the contract that they entered into with the defendant Company to mine coal, I do not see how they could succeed. Their contract was to mine coal in that mine at so much per car, and assuming that this agreement of the 23rd of December, 1907, was applicable to that contract which I speak of, and I think perhaps Mr. Mackie is right in saying that I should think it was applicable, and that the agency was thoroughly established by means of which it was made applicable —what is it that the defendant Company agreed to do? All that is stated in that contract is that the Company attends to timber, water and track. Now that is very, very vague, extremely vague. It seems to me that if the plaintiffs, or the individual plaintiff which I am now speaking of, had desired to insist that this Company should make their mine a perfect working machine, to work like clockwork, so that they individually, as part of that machine, should not be delayed for a moment or to the slightest degree in carrying out their contract,

if they had wanted to insist that this Company must have timber there on the spot ready for them at every moment, so that there would be no delay, they should have seen that such a stringent stipulation was inserted in the agreement itself. I have to interpret the agreement as it stands, and I have to interpret it in a reasonable way, and my opinion is that the only fair interpretation of that clause is this, that the Company agrees to keep this mine supplied in a reasonable manner with the necessary timber, to put in the necessary timber with reasonable promptness, not with absolute promptness to the very moment, but simply with reasonable promptness; with respect to water, they agree to keep that mine reasonably clear from water, not to keep it perfectly dry, but to keep it reasonably clear from water, so that there will be no unreasonable interference with those men in the pursuance of their contract. The same applies to the stipulation in regard to the track; they have to keep, I should say, the track in reasonably fair condition.

Now, what are the facts? I am bound to say that I find it impossible from the evidence to find that the track was not kept in a reasonably fair condition. At any rate, it was kept in such condition that some of these men were able to earn five or six dollars a day at times, and some of them said they earned on an average of $4.50 a day. With respect to water, taking the evidence of Landles, the pit boss, and balancing it with the evidence of the plaintiffs, I confess that I am unable to come to the conclusion that the plaintiffs have proven, as the burden was upon them to prove, that the water was not removed with reasonable promptness.

There may have been some wet there; no doubt there was, but I do not think that the plaintiffs, or the individual plaintiff of whom I am hypothetically speaking, has satisfied the burden that is on him of proving that there was any unreasonable condition. The same applies to the timber. There was delay, no doubt, but I confess I do not think they are entitled to come in and demand as their right that that mine should work as a piece of perfect machinery, and that there should be no delay whatever in putting up the timber. As I have already said, if they wanted to put such a stringent burden on the defendant Company, they should have put it upon them by express words. They did not do that, and I find the fact that timber was attended to with reasonable promptness. It is true some of the plaintiffs say that they did attend to the timber themselves, but I am not convinced that they would have been doing anything else in the meantime.

I want to make this observation, however, that something was said during the course of the trial about the amount these men were earning. These men were on contract, and they had a perfect right to earn just as many dollars a day as they could. They had a perfect right to make ten dollars if they could out of their contract if they wanted to, and there should be nothing inferred against them because they made a great deal. They have just as much right to make a good thing out of their contract as a railway contractor has to make out of a contract building a railway. But the fact still remains that they did make what was apparently a pretty fair wage; and the fact remains that the condition of the mine, as I find it to have been, was not an unreasonable one, and that the delay in supplying timber was not an unreasonable delay. That

is all, I think, that the plaintiffs could ask. Perhaps I am repeating it too much, but I insist upon it that they have no right to ask that the whole affair would work so perfectly, at any rate, under the agreement as it now stands. So that even on the merits, if any individual action may have been brought, I am of the opinion that the plaintiff would not succeed in establishing what he should establish in order to recover damages.

Just let me refer for a moment—it is scarcely necessary in view of so much being said—to what is popularly called The Lemieux Act. In my view, that Act which is technically called The Industrial Disputes Investigation Act of 1907, has absolutely not a single thing to do with this case. That Act was passed for the purpose of preventing industrial disputes and for preventing strikes and lockouts, and all it did was to provide for the establishment of a Board of Conciliation and to insist that before a party to a dispute should take any action which interrupts trade, which would lead to the interruption of commerce, either by a strike or by a lockout, he must refer his case to a Conciliation Board; and if he does not do so, it provides he may be fined. It simply enforces the parties to such a dispute to go before a Conciliation Board and see if the matter cannot be arranged. It had no intention beyond that at all. There is not a single thing in the Act which would give this agreement which is alleged here any higher efficacy or authority than it would have had had it been entered into quite apart from a meeting of any Conciliation Board. Mr. Mackie referred to section 62, but I can find nothing in that section which would make this agreement any more binding than it would have been otherwise. In fact, I rather think that the Act is just a little misleading when it speaks of parties, as it does in section 62, being bound as upon an award made pursuant to a reference to arbitration, because in nearly every case, that is cases in which I have had experience, the parties to such a dispute are, in the first place, the employer, who is generally a definite person or a corporation, and on the other hand the employees, an indefinite body, represented by some trades union, not incorporated, not registered. So that the use of that expression, parties being bound upon an award, is to my mind—I think I understand the Act—a little misleading, because it is very difficult, just as we find here, to see how such parties as the trades union can be bound civilly when they cannot sue or cannot be sued. Possibly by means of the principle of agency, if the parties are definitely known and described that is, the individual employees are named and the document is signed by persons who are recognized as their agents, they might be bound. In fact, in the judgment I have just given, I have practically admitted that, when I ruled against Mr. Lavell's objection, there was no agency in this case for signing the agreement of December 23rd, but, at any rate, however that may be, it is quite clear to my mind, that there is nothing in the Act which places such an agreement as this on any higher position than it would be had it been entered into irrespective of the Act altogether.

For these reasons, I think the action will have to be dismissed with costs.

III.—JUDGMENT ON APPEAL IN THE SUPREME COURT OF ALBERTA IN A SUIT BROUGHT UNDER THE ACT.

On September 14, 1908, information was laid by George Harrison, of Morinville, before Inspector Worsley, of the Royal North-West Mounted Police, one of His Majesty's Justices of the Peace, alleging that George Montgomery, manager of the Alberta Coal Mining Company, of Edmonton, had caused a lockout in the Company's mines at Morinville, Alta., by refusing to continue to employ 20 of the employees in consequence of a dispute as to wages with a view to compelling the said employees to accept his terms of employment, contrary to the terms of the Industrial Disputes Investigation Act.

On October 1, judgment was given by Inspector Worsley declaring Mr. Montgomery not guilty of the charge. In this judgment the Justice of the Peace observed: "I am of the opinion that Mr. Montgomery was justified in informing the men that he could not pay more than 70 cents, owing to his losing money on a contract, that the three or four days which he asked were merely used in endeavours to settle the dispute; that on the 8th Mr. Montgomery and the men agreed at the rate of $3.00 per diem, that on the 9th the men did not go to work and as a result on the 10th other men were called in to take their places."

On October 1, information was laid by Mr. George Harrison, of Morinville, against the Alberta Coal Mining Company of Edmonton, in which the latter were accused of causing a lockout by refusing to continue to employ 25 of the employees in its mines in consequence of a dispute as to wages, with a view to compelling the said employees to accept the terms of the Company contrary to the terms of the Industrial Disputes Investigation Act. In this case, by consent of both parties concerned, the evidence given in an action against George Montgomery was put in. The case was dismissed by Inspector Worsley, costs to be paid by the complainants.

The Department received during the month of March the text of a judgment on appeal by Mr. Justice Taylor in the Supreme Court of Alberta in the foregoing case. The particulars are set forth in the text, which is printed in full herewith, viz.:—

In the matter of the Information and Complaint of George Harrison against the Alberta Coal Mining Company, Limited.

This is an appeal from a magistrate dismissing the complaint of one Harrison against the Alberta Coal Mining Company for causing a lockout between the 4th and 10th days of September, 1908, "by refusing to employ twenty-five of its employees in its mine in consequence of a dispute as to wages with a view to compelling the said employees to accept its, the defendant's terms of employment, contrary to an Act to aid the prevention and settlement of strikes and lockouts in mines and industries connected with public utilities, known as "The Industrial Disputes Investigation Act of 1907."

According to the evidence there was an agreement between the Company and the men on the 18th August to pay 90c. a car for coal mined. On the 2nd September the mine was closed. No notice was given to the men of such closing. Some two or three days after this the men were told that they could go to work at 70c. a car. They refused to accept this, and an agreement was made on the 8th with the men to return to work at $3.00 a day, but the number of men to be employed was to be reduced to 12 or 15. There had been 20 to 25 employed previously. In the Act under which the complaint is laid, "lockout" is defined as follows:—"Sub-section F of Section 2 (Lockout without limiting the nature of its meaning) means a closing of a place of employment or a suspension of work or a refusal by an employer to continue to employ any number of his employees in consequence of a dispute done with a view to compelling his employees or to aid another employer to compel his employees to accept terms of employment."

In regard to the agreement of August 18th, this I understand was made by the officers of the Union *with* the Company. Is that a valid agreement? Suppose the Union has no status in Court? Could the Union not act as the agent of the men in making an agreement with the Company? But I do not think that the agreement can be attacked in the action. The main point is that the parties were working under the same at the time the mine was closed. The manager says because there were no cars to take away the coal. This to my mind would be a perfectly legitimate reason for closing down the mine or laying off any portion of the men, but we find on the 4th or 5th of September that the men are told that they can return to work if they will accept 70 cents per car instead of 90 cents. This is the time, it seems to me, the lockout started. There would have been no lockout if the men on that date or even on a later date were told they could return to work at the same wage they were getting before being laid off. Mr. Montgomery denies that he told one of the miners that he could not possibly pay 90 cents per car and operate his mine, but it seems to me that his conduct afterwards is not in accordance with this denial. There is no dispute to the evidence that he met the men on the 8th and made them a new offer. If he were satisfied with the former wages, why did he treat with the men for new terms? Why did he not say I have cars now and the mine can be operated? There is an attempt on the part of the defence to prove that the mine was never closed, that some men were working all the time. This may be true. There might have been a few men who were working, but nearly all, if not all, the men were laid off. Even suppose that some of the men were working, in my opinion it is not necessary under the interpretation of lockout that all labour be suspended. After the 5th September some of the men went down the mine to clean up their stalls and see that all was left safe and clean, but this, according to *evidence*, is only a custom of the miners, and I cannot hold that the mine was working while this was going on.

The evidence is very conflicting as to what took place after the settlement was reached on the 8th. Mr. Montgomery stated that he was willing for the miners to go to work on the morning of the 9th, and any that applied to him individually for work got it.

The Act was passed to aid in the prevention and settlement of strikes and lockouts in mines and industries connected with public utilities. Certain procedure is laid down in the Act which must be followed out, or the party violating the same must pay the penalty imposed. Mr. Montgomery did not attempt to follow this Act. Under the excuse that he had no cars to ship coal he lays off his men, closes his mine, and then attempts to make new terms with his men. He gave no notice as required in Sec. 57. He shuts down his mine and then tried to arrange new terms with his men. It seems to me a clear case of violating of the Act. There is no evidence to show that the mine was closed before the 5th by reason of a dispute. It was on this date that the employees first knew that there was to be a change in wages and a settlement was effected on the evening of the 8th.

I will, therefore, hold that the mine was closed in violation of the Act for three days. As Sec. 58 of the Act fixes the minimum amount at $100 per day, I will impose a fine on the Company of $300.00, with costs both of the appeal and in the court below.

Edmonton, March 1, 1909.

(Sgd.) H. C. Taylor.
J. D. C.

6-7 EDWARD VII.

CHAP. 20.

An Act to aid in the Prevention and Settlement of Strikes and Lockouts in Mines and Industries connected with Public Utilities.

[*Assented to 22nd March, 1907.*]

HIS Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. This Act may be cited as *The Industrial Disputes Investigation Act*, 1907. Short title.

PRELIMINARY.

Interpretation.

2. In this Act, unless the context otherwise requires—

(*a*) "Minister" means the Minister of Labour; "Minister."

(*b*) "department" means the Department of Labour; "Department."

(*c*) "employer" means any person, company or corporation employing ten or more persons and owning or operating any mining property, agency of transportation or communication, or public service utility, including, except as hereinafter provided, railways, whether operated by steam, electricity or other motive power, steamships, telegraph and telephone lines, gas, electric light, water and power works; "Employer."

(*d*) "employee" means any person employed by an employer to do skilled or unskilled manual or clerical work for hire or reward in any industry to which this Act applies; "Employee."

(*e*) "dispute" or "industrial dispute" means any dispute or difference between an employer and one or more of his employees, as to matters or things relating to work done or to be done by him "Dispute." "Industrial dispute."

or them, or as to the privileges, rights and duties of employers or employees (not involving any such violation thereof as constitutes an indictable offence); and, without limiting the general nature of the above definition, includes all matters relating to—

(1) the wages allowance or other remuneration of employees, or the price paid or to be paid in respect of employment;

(2) the hours of employment, sex, age, qualification or status of employees, and the mode, terms and conditions of employment;

(3) the employment of children or any person or persons or class of persons, or the dismissal of or refusal to employ any particular person or persons or class of persons;

(4) claims on the part of an employer or any employee as to whether and, if so, under what circumstances, preference of employment should or should not be given to one class over another of persons being or not being members of labour or other organizations, British subjects or aliens;

(5) materials supplied and alleged to be bad, unfit or unsuitable, or damage alleged to have been done to work;

(6) any established custom or usage, either generally or in the particular district affected;

(7) the interpretation of an agreement or a clause thereof;

"Lockout." (*f*) "lockout" (without limiting the nature of its meaning) means a closing of a place of employment, or a suspension of work, or a refusal by an employer to continue to employ any number of his employees in consequence of a dispute, done with a view to compelling his employees, or to aid another employer in compelling his employees, to accept terms of employment;

"Strike." (*g*) "strike" or "to go on strike" (without limiting the nature of its meaning) means the cessation of work by a body of employees acting in combination, or a concerted refusal or a refusal under a common understanding of any number of employees to continue to work for an employer, in consequence of a dispute, done as a means of compelling their employer, or to aid other employees in compelling their employer, to accept terms of employment;

"Board." (*h*) "board" means a Board of Conciliation and Investigation established under the provisions of this Act;

"Application." (*i*) "application" means an application for the appointment of a Board under the provisions of this Act;

"Registrar." (*j*) "Registrar" means the Registrar of Boards of Conciliation and Investigation under this Act;

"Prescribed." (*k*) "prescribed" means prescribed by this Act, or by any rules or regulations made thereunder;

"Trade union." (*l*) "trade union" or "union" means any organization of employees formed for the purpose of regulating relations between employers and employees.

Administration.

3. The Minister of Labour shall have the general administration of this Act. Minister of Labour to administer Act.

4. The Governor in Council shall appoint a Registrar of Boards of Conciliation and Investigation, who shall have the powers and perform the duties prescribed. Registrar.

2. The office of Registrar may be held either separately or in conjunction with any other office in the public service, and in the latter case the Registrar may, if the Governor in Council thinks fit, be appointed, not by name, but by reference to such other office, whereupon the person who for the time being holds such office, or performs its duties, shall by virtue thereof be the Registrar.

BOARDS OF CONCILIATION AND INVESTIGATION.

Constitution of Boards.

5. Wherever any dispute exists between an employer and any of his employees, and the parties thereto are unable to adjust it, either of the parties to the dispute may make application to the Minister for the appointment of a Board of Conciliation and Investigation, to which Board the dispute may be referred under the provisions of this Act: Provided, however, that, in the case of a dispute between a railway company and its employees, such dispute may be referred, for the purpose of conciliation and investigation, under the provisions concerning railway disputes in the Conciliation and Labour Act. Reference of disputes to Boards of Conciliation and Investigation.

6. Whenever, under this Act, an application is made in due form for the appointment of a Board of Conciliation and Investigation, and such application does not relate to a dispute which is the subject of a reference under the provisions concerning railway disputes in the Conciliation and Labour Act, the Minister, whose decision for such purpose shall be final, shall, within fifteen days from the date at which the application is received, establish such Board under his hand and seal of office, if satisfied that the provisions of this Act apply. Minister to appoint Boards on application.

7. Every Board shall consist of three members who shall be appointed by the Minister. Members of Board.

2. Of the three members of the Board one shall be appointed on the recommendation of the employer and one on the recommendation of the employees (the parties to the dispute), and the third on the recommendation of the members so chosen.

8. For the purposes of appointment of the members of the Board, the following provisions shall apply:— Procedure for appointment of members of Board.

1. Each party to the dispute may, at the time of making application or within five days after being requested so to do by the Minister,

recommend the name of one person who is willing and ready to act as a member of the Board, and the Minister shall appoint such person a member of the Board.

2. If either of the parties fails or neglects to duly make any recommendation within the said period, or such extension thereof as the Minister, on cause shown, grants, the Minister shall, as soon thereafter as possible, appoint a fit person to be a member of the Board; and such member shall be deemed to be appointed on the recommendation of the said party.

3. The members chosen on the recommendation of the parties may, within five days after their appointment, recommend the name of one person who is willing and ready to act as a third member of the Board, and the Minister shall appoint such person a member of the Board.

4. If the members chosen on the recommendation of the parties fail or neglect to duly make any recommendation within the said period, or such extension thereof as the Minister, on cause shown, grants, the Minister shall, as soon thereafter as possible, appoint a fit person to be a third member of the Board, and such member shall be deemed to be appointed on the recommendation of the two other members of the Board.

5. The third member shall be the Chairman of the Board.

Notification to be given parties of members of Board.

9. As soon as possible after the full Board has been appointed by the Minister, the Registrar shall notify the parties of the names of the members of the Board and the chairman thereof, and such notification shall be final and conclusive for all purposes.

Term of office.

10. Every member of a Board shall hold office from the time of his appointment until the report of the Board is signed and transmitted to the Minister.

Members not to have pecuniary interest.

11. No person shall act as a member of a Board who has any direct pecuniary interest in the issue of a dispute referred to such a Board.

How vacancy to be filled.

12. Every vacancy in the membership of a Board shall be supplied in the same manner as in the case of the original appointment of every person appointed.

Oath of office and secrecy.

13. Before entering upon the exercise of the functions of their office the members of the Board, including the chairman, shall make oath or affirmation before a justice of the peace that they will faithfully and impartially perform the duties of their office, and also that, except in the discharge of their duties, they will not disclose to any person any of the evidence or other matter brought before the Board.

Clerical and other assistance.

14. The department may provide the Board with a secretary, stenographer, or such other clerical assistance as to the Minister appears necessary for the efficient carrying out of the provisions of this Act.

Procedure for Reference of Disputes to Boards.

15. For the purpose of determining the manner in which, and the persons by whom, an application for the appointment of a Board is to be made, the following provisions shall apply:— Manner in which application to be made.

1. The application shall be made in writing in the prescribed form, and shall be in substance a request to the Minister to appoint a Board to which the existing dispute may be referred under the provisions of this Act.

2. The application shall be accompanied by—

(*a*) A statement setting forth—

(1) the parties to the dispute;

(2) the nature and cause of the dispute, including any claims or demands made by either party upon the other, to which exception is taken;

(3) an approximate estimate of the number of persons affected or likely to be affected by the dispute;

(4) the efforts made by the parties themselves to adjust the dispute;

and—

(*b*) A statutory declaration setting forth that, failing an adjustment of the dispute or a reference thereof by the Minister to a Board of Conciliation and Investigation under the Act, to the best of the knowledge and belief of the declarant, a lockout or strike, as the case may be, will be declared, and that the necessary authority to declare such lockout or strike has been obtained.

3. The application may mention the name of a person who is willing and ready and desires to act as a member of the Board representing the party or parties making the application.

16. The application and the declaration accompanying it— Signatures to application

(1) if made by an employer, an incorporated company or corporation, shall be signed by some one of its duly authorized managers or other principal executive officers;

(2) if made by an employer other than an incorporated company or corporation, shall be signed by the employer himself in case he is an individual, or a majority of the partners or members in case of a partnership firm or association;

(3) if made by employees members of a trade union, shall be signed by two of its officers duly authorized by a majority vote of the members of the union, or by a vote taken by ballot of the members of the union present at a meeting called on not less than three days' notice for the purpose of discussing the question;

(4) if made by employees some or all of whom are not members of a trade union, shall be signed by two of their number duly authorized by a majority vote taken by ballot of the employees present at a meeting called on not less than three days' notice for the purpose of discussing the question.

Application to be transmitted by registered letter.

17. Every application for the appointment of a Board shall be transmitted by post by registered letter addressed to the Registrar of Boards of Conciliation and Investigation, Department of Labour, Ottawa, and the date of the receipt of such registered letter at the department shall be regarded as the date of the receipt of such application.

Party making application to transmit copy to other party to dispute.

18. In every case where an application is made for the appointment of a Board the party making the application shall, at the time of transmitting it to the Registrar, also transmit by registered letter to the other party to the dispute, or by personal delivery, a copy of the application and of the accompanying statement and declaration.

Statement in reply to be made and sent to Registrar and to party making application.

19. Upon receipt by either party to a dispute of a copy of the application for the appointment of a Board such party shall, without delay, prepare a statement in reply to the application and transmit it by registered letter, or by personal delivery, to the Registrar and to the party making the application.

To whom communications transmitting copies of applications and replies between parties are to be sent.

20. Copies of applications or statements in reply thereto, to be transmitted to the other party under any of the preceding sections where the other party is—

(1) an employer, an incorporated company or corporation, shall be sent to the manager or other principal executive officer of the company or corporation;

(2) an employer other than an incorporated company or corporation, shall be sent to the employer himself or to the employer in the name of the business or firm as commonly known;

(3) composed of employees, members of a trade union, shall be sent to the president and secretary of such union;

(4) composed of employees some or all of whom are not members of a trade union—

(a) Where some of the employees are members of a trade union, shall be sent to the president and secretary of the union as representing the employees belonging to the union; also

(*b*) Where some of the employees are not members of a trade union and there are no persons authorized to represent such employees, shall be sent to ten of their number;

(*c*) Where, under paragraph (4) of section 16, two persons have been authorized to make an application, shall be sent to such two persons.

Functions, Powers and Procedure of Boards.

Jurisdiction. At least ten employees to be affected by dispute.

21. Any dispute may be referred to a Board by application in that behalf made in due form by any party thereto; provided that no dispute shall be the subject of reference to a Board under this Act in any case in which the employees affected by the dispute are fewer than ten.

Method of referring disputes to Board.

22. Upon the appointment of the Board the Registrar shall forward to the chairman a copy of the application for the appointment of such Board, and of its accompanying statement and declaration, and of the statement in reply, and the Board shall forthwith proceed to deal with the matters referred to in these documents.

Duties of Board.

23. In every case where a dispute is duly referred to a Board it shall be the duty of the Board to endeavour to bring about a settlement of the dispute, and to this end the Board shall, in such manner as it thinks fit, expeditiously and carefully inquire into the dispute and all matters affecting the merits thereof and the right settlement thereof. In the course of such inquiry the Board may make all such suggestions and do all such things as it deems right and proper for inducing the parties to come to a fair and amicable settlement of the dispute, and may adjourn the proceedings for any period the Board thinks reasonable to allow the parties to agree upon terms of settlement.

Where settlement effected, memorandum of same with report to be forwarded to Minister.

24. If a settlement of the dispute is arrived at by the parties during the course of its reference to the Board, a memorandum of the settlement shall be drawn up by the Board and signed by the parties, and shall, if the parties so agree, be binding as if made a recommendation by the Board under section 62 of this Act, and a copy thereof with a report upon the proceedings shall be forwarded to the Minister.

Where settlement not effected, Board to make report with recommendations.

25. If a settlement of the dispute is not arrived at during the course of its reference to the Board, the Board shall make a full report thereon to the Minister, which report shall set forth the various proceedings and steps taken by the Board for the purpose of fully and carefully ascertaining all the facts and circumstances, and shall also set forth such facts and circumstances, and its findings therefrom, including the cause of the dispute and the Board's recommendation for the settlement of the dispute according to the merits and substantial justice of the case.

Form in which recommendation shall be made.

26. The Board's recommendation shall deal with each item of the dispute and shall state in plain terms, and avoiding as far as possible all technicalities, what in the Board's opinion ought or ought not to be done by the respective parties concerned. Wherever it appears

to the Board expedient so to do, its recommendation shall also state the period during which the proposed settlement should continue in force, and the date from which it should commence.

Report and recommendation to be made to the Minister in writing.

27. The Board's report and recommendation shall be made to the Minister in writing, and shall be signed by such of the members as concur therein, and shall be transmitted by the chairman by registered letter to the Registrar as soon as practicable after the reference of the dispute to the Board; and in the same manner a minority report may be made by any dissenting member of the Board.

Filing and distribution of report.

28. Upon receipt of the Board's report the Minister shall forthwith cause the report to be filed in the office of the Registrar and a copy thereof to be sent free of charge to the parties to the dispute, and to the representative of any newspaper published in Canada who applies therefor, and the Minister may distribute copies of the report, and of any minority report, in such manner as to him seems most desirable as a means of securing a compliance with the Board's recommendation. The Registrar shall, upon application, supply certified copies for a prescribed fee, to persons other than those mentioned in this section.

Publication of report.

29. For the information of Parliament and the public, the report and recommendation of the Board, and any minority report, shall, without delay, be published in the *Labour Gazette*, and be included in the annual report of the Department of Labour to the Governor-General.

Powers of Board to summon witnesses, compel testimony and produce testimony and production of documents.

30. For the purpose of its inquiry the Board shall have all the powers of summoning before it, and enforcing the attendance of witnesses, of administering oaths, and of requiring witnesses to give evidence on oath or on solemn affirmation (if they are persons entitled to affirm in civil matters) and to produce such books, papers or other documents or things as the Board deems requisite to the full investigation of the matters into which it is inquiring, as is vested in any court of record in civil cases.

2. Any member of the Board may administer an oath, and the Board may accept, admit and call for such evidence as in equity and good conscience it thinks fit, whether strictly legal evidence or not.

Form of summons.

31. The summons shall be in the prescribed form, and may require any person to produce before the Board any books, papers or other documents or things in his possession or under his control in any way relating to the proceedings.

Documents not to be made public.

32. All books, papers and other documents or things produced before the Board, whether voluntarily or in pursuance to summons, may be inspected by the Board, and also by such parties as the Board

allows; but the information obtained therefrom shall not, except in so far as the Board deems it expedient, be made public, and such parts of the books, papers or other documents as in the opinion of the Board do not relate to the matter at issue may be sealed up.

Parties may be compelled to be witnesses.

33. Any party to the proceedings shall be competent and may be compelled to give evidence as a witness.

Allowance to witnesses.

34. Every person who is summoned and duly attends as a witness shall be entitled to an allowance for expenses according to the scale for the time being in force with respect to witnesses in civil suits in the superior courts in the province where the inquiry is being conducted.

Witnesses in railway disputes to be entitled to free transportation.

35. Where a reference has been made to the Board of a dispute between a railway company and its employees, any witness summoned by the Board in connection with the dispute shall be entitled to free transportation over any railway en route when proceeding to the place of meeting of the Board and thereafter returning to his home, and the Board shall furnish to such witness a proper certificate evidencing his right to such free transportation.

Penalty for failing to obey summons.

36. If any person who has been duly served with such summons and to whom at the same time payment or tender has been made of his reasonable travelling expenses according to the aforesaid scale, fails to duly attend or to duly produce any book, paper or other document or thing as required by his summons, he shall be guilty of an offence and liable to a penalty not exceeding one hundred dollars, unless he shows that there was good and sufficient cause for such failure.

Contempt of the Board.

37. If, in any proceedings before the Board, any person wilfully insults any member of the Board or wilfully interrupts the proceedings, or without good cause refuses to give evidence, or is guilty in any other manner of any wilful contempt in the face of the Board, any officer of the Board or any constable may take the person offending into custody and remove him from the precincts of the Board, to be detained in custody until the rising of the Board, and the person so offending shall be liable to a penalty not exceeding one hundred dollars.

View by direction of Board.

38. The Board, or any member thereof, and, on being authorized in writing by the Board, any other person, may, without any other warrant than this Act, at any time, enter any building, mine, mine workings, ship, vessel, factory, workshop, place or premises of any kind, wherein, or in respect of which, any industry is carried on or any work is being or has been done or commenced, or any matter or

thing is taking place or has taken place, which has been made the subject of a reference to the Board, and inspect and view any work, material, machinery, appliance or article therein, and interrogate any persons in or upon such building, mine, mine workings, ship, vessel, factory, workshop, place or premises as aforesaid, in respect of or in relation to any matter or thing hereinbefore mentioned, and any person who hinders or obstructs the Board or any such person authorized as aforesaid, in the exercise of any power conferred by this section, shall be guilty of an offence and be liable to a penalty not exceeding one hundred dollars.

Power to investigate, examination of factories, &c. Inspection of work.

How parties may be represented before Board.

39. Any party to a reference may be represented before the Board by three or less than three persons designated for the purpose, or by counsel or solicitor where allowed as hereinafter provided.

Parties to be bound by acts of representatives.

40. Every party appearing by a representative shall be bound by the acts of such representative.

Counsel or solicitors excluded except by consent of parties and of Board.

41. No counsel or solicitor shall be entitled to appear or be heard before the Board, except with the consent of the parties to the dispute, and notwithstanding such consent the Board may decline to allow counsel or solicitors to appear.

Members of Board to be British subjects.

42. Persons other than British subjects shall not be allowed to act as members of a Board.

Presence of parties.

43. If, without good cause shown, any party to proceedings before the Board fails to attend or to be represented, the Board may proceed as if he had duly attended or had been represented.

Time and place of sittings of Board.

44. The sittings of the Board shall be held at such time and place as are from time to time fixed by the chairman, after consultation with the other members of the Board, and the parties shall be notified by the chairman as to the time and place at which sittings are to be held: Provided that, so far as practicable, the Board shall sit in the locality within which the subject-matter of the proceeding before it arose.

Proceedings to be public unless otherwise determined by Board.

45. The proceedings of the Board shall be conducted in public; provided that at any such proceedings before it, the Board, on its own motion, or on the application of any of the parties, may direct that the proceedings shall be conducted in private and that all persons other than the parties, their representatives, the officers of the Board and the witnesses under examination shall withdraw.

Majority of Board.

46. The decision of a majority of the members present at a sitting of the Board shall be the decision of the Board, and the findings and

recommendations of the majority of its members shall be those of the Board.

Quorum.

47. The presence of the chairman and at least one other member of the Board shall be necessary to constitute a sitting of the Board.

All members of Board to be present.

48. In case of the absence of any one member from a meeting of the Board the other two members shall not proceed, unless it is shown that the third member has been notified of the meeting in ample time to admit of his attendance.

2. If any member of a Board dies, or becomes incapacitated, or refuses or neglects to act, his successor shall be appointed in the manner provided with respect to the original member of the Board.

Trivial matters.

49. The Board may at any time dismiss any matter referred to it which it thinks frivolous or trivial.

Employment of experts.

50. The Board may, with the consent of the Minister, employ competent experts or assessors to examine the books or official reports of either party, and to advise it upon any technical or other matter material to the investigation, but shall not disclose such reports or the results of such inspection or examination under this section without the consent of both the parties to the dispute.

Remuneration and Expenses of Board.

Allowance to members of Board.

51. The members of a Board while engaged in the adjustment of a dispute shall be remunerated for their service as follows:—

(*a*) to members other than the chairman—

(i) an allowance of five dollars a day for a time not exceeding three days during which the members may be actually engaged in selecting a third member of the Board;

(ii) an allowance of fifteen dollars for each whole day's sittings of the Board;

(iii) an allowance of seven dollars for each half-day's sittings of the Board;

(*b*) the chairman shall be allowed twenty dollars a day for each whole day's sittings of the Board, and ten dollars a day for each half-day's sittings;

(*c*) no allowance shall be made to any member of the Board on account of any sitting of the Board which does not extend over a half day, unless it is shown to the satisfaction of the Minister that such meeting of the Board was necessary to the performance of its duties as speedily as possible, and that the causes which prevented a half-day's sitting of the Board were beyond its control.

Acceptance of gratuities and perquisites by members an offence.

52. No member of the Board shall accept in addition to his salary as a member of the Board any perquisite or gratuity of any kind, from any corporation, association, partnership or individual in any way interested in any matter or thing before or about to be brought before the Board in accordance with the provisions of this Act. The accepting of such perquisite or gratuity by any member of the Board shall be an offence and shall render such member liable to a fine not exceeding one thousand dollars.

Actual necessary travelling expenses of members allowed.

53. Each member of the Board will be entitled to his actual necessary travelling expenses for each day that he is engaged in travelling from or to his place of residence for the purpose of attending or after having attended a meeting of the Board.

Payment of expenses of Board.

54. All expenses of the Board, including expenses for transportation incurred by the members thereof or by persons under its order in making investigations under this Act, salaries of employees and agents, and fees and mileage to witnesses shall be allowed and paid upon the presentation of itemized vouchers therefor, approved by the chairman of the Board, which vouchers shall be forwarded by the chairman to the Minister. The chairman shall also forward to the Minister a certified and detailed statement of the sitting of the Board, and of the members present at such sittings.

DUTIES OF THE REGISTRAR.

To receive and deal with applications.

55. It shall be the duty of the Registrar:—

(*a*) to receive and register, and, subject to the provisions of this Act, to deal with all applications by employers or employees for a reference of any dispute to a Board, and to at once bring to the Minister's attention every such application;

Assist in constituting Boards.

(*b*) to conduct such correspondence with the parties and members of Boards as may be necessary to constitute any Board as speedily as possible in accordance with the provisions of this Act;

Assist in giving effect to recommendations of Boards.

(*c*) to receive and file all reports and recommendations of Boards, and conduct such correspondence and do such things as may assist in rendering effective the recommendations of the Boards, in accordance with the provisions of this Act;

Register particulars of proceedings before Boards and safeguard all documents relating to proceedings.

(*d*) to keep a register in which shall be entered the particulars of all applications, references, reports and recommendations relating to the appointment of a Board, and its proceedings; and to safely keep all applications, statements, reports, recommendations and other documents relating to proceedings before the Board, and, when so required, transmit all or any of such to the Minister;

Supply information and necessary forms.

(*e*) to supply to any parties, on request, information as to this Act, or any regulations or proceedings thereunder, and also to furnish parties to a dispute and members of the Board with necessary

blank forms, forms of summons or other papers or documents required in connection with the effective carrying out of the provisions of this Act; relating to proceedings before Board.

(*f*) generally, to do all such things and take all such proceedings as may be required in the performance of his duties prescribed under this Act or any regulations thereunder. Generally.

STRIKES AND LOCKOUTS PRIOR TO AND PENDING A REFERENCE TO A BOARD ILLEGAL.

56. It shall be unlawful for any employer to declare or cause a lockout, or for any employee to go on strike, on account of any dispute prior to or during a reference of such dispute to a Board of Conciliation and Investigation under the provisions of this Act, or prior to or during a reference under the provisions concerning railway disputes in the Conciliation and Labour Act: Provided that nothing in this Act shall prohibit the suspension or discontinuance of any industry or of the working of any persons therein for any cause not constituting a lockout or strike: Provided also that, except where the parties have entered into an agreement under section 62 of this Act, nothing in this Act shall be held to restrain any employer from declaring a lockout, or any employee from going on strike in respect of any dispute which has been duly referred to a Board and which has been dealt with under section 24 or 25 of this Act, or in respect of any dispute which has been the subject of a reference under the provisions concerning railway disputes in the Conciliation and Labour Act. Prohibition of strikes or lockouts prior to or pending reference to Board.

57. Employers and employees shall give at least thirty days' notice of an intended change affecting conditions of employment with respect to wages or hours; and in every case where a dispute has been referred to a Board, until the dispute has been finally dealt with by the Board, neither of the parties nor the employees affected shall alter the conditions of employment with respect to wages or hours, or on account of the dispute do or be concerned in doing, directly or indirectly, anything in the nature of a lockout or strike, or a suspension or discontinuance of employment or work, but the relationship shall continue uninterrupted by the dispute, or anything arising out of the dispute; but if, in the opinion of the Board, either party uses this or any other provision of this Act for the purpose of unjustly maintaining a given condition of affairs through delay, and the Board so reports to the Minister, such party shall be guilty of an offence, and liable to the same penalties as are imposed for a violation of the next preceding section. Relation of parties to remain unchanged pending proceedings before a Board.

58. Any employer declaring or causing a lockout contrary to the provisions of this Act shall be liable to a fine of not less than one hundred dollars, nor more than one thousand dollars for each day or part of a day that such lockout exists. Penalty for causing lockout.

Penalty for going on strike.

59. Any employee who goes on strike contrary to the provisions of this Act shall be liable to a fine of not less than ten dollars nor more than fifty dollars, for each day or part of a day that such employee is on strike.

Penalty for inciting to lockout or strike.

60. Any person who incites, encourages or aids in any manner any employer to declare or continue a lockout, or any employee to go or continue on strike contrary to the provisions of this Act, shall be guilty of an offence and liable to a fine of not less than fifty dollars nor more than one thousand dollars.

Procedure for enforcing penalties.

61. The procedure for enforcing penalties imposed or authorized to be imposed by this Act shall be that prescribed by Part XV of *The Criminal Code* relating to summary convictions.

SPECIAL PROVISIONS.

Recommendation of a Board binding in certain cases.

62. Either party to a dispute which may be referred under this Act to a Board may agree in writing, at any time before or after the Board has decided to refer such dispute, the lockout or strike, if in existmendation of the Board in the same manner as parties are bound upon an award made pursuant to a reference to arbitration on the order of a court of record; every agreement so to be bound made by one party shall be forwarded to the Registrar who shall communicate it to the other party, and if the other party agrees in like manner to be bound by the recommendation of the Board, then the recommendation shall be made a rule of the said court on the application of either party and shall be enforceable in like manner.

Application of provisions of this Act to any dispute on joint application of parties.

63. In the event of a dispute arising in any industry or trade other than such as may be included under the provisions of this Act, and such dispute threatens to result in a lockout or strike, or has actually resulted in a lockout or strike, either of the parties may agree in writing to allow such dispute to be referred to a Board of Conciliation and Investigation, to be constituted under the provisions of this Act.

2. Every agreement to allow such reference shall be forwarded to the Registrar, who shall communicate it to the other party, and if such other party agrees in like manner to allow the dispute to be referred to a Board, the dispute may be so referred as if the industry or trade and the parties were included within the provisions of this Act.

3. From the time that the parties have been notified in writing by the Registrar that in consequence of their mutual agreement to refer the dispute to a Board under the provisions of this Act, the Minister has decided to refer such dispute, the lockout or strike, if in existence, shall forthwith cease, and the provisions of this Act shall bind the parties.

MISCELLANEOUS.

Courts not to recognize reports of or testimony before a Board, except in prosecutions for perjury.

64. No court of the Dominion of Canada, or of any province or territory thereof, shall have power or jurisdiction to recognize or enforce, or to receive any report of a Board, or any testimony or proceedings before a Board, as against any person or for any purpose, except in the case of the prosecution of such person for perjury.

Technicality not to invalidate proceedings.

65. No proceeding under this Act shall be deemed invalid by reason of any defect of form or any technical irregularity.

Payment of services under Act.

66. The Minister shall determine the allowance or amounts to be paid to all persons other than the members of a Board, employed by the Government or any Board, including the Registrar, secretaries, clerks, experts, stenographers or other persons performing any services under the provisions of this Act.

Prosecutions under Act to be reported to Register.

67. In case of prosecutions under this Act, whether a conviction is or is not obtained, it shall be the duty of the clerk of the court before which any such prosecution takes place to briefly report the particulars of such prosecution to the Registrar within thirty days after it has been determined, and such clerk shall be entitled to a prescribed fee in payment of his services.

Minister may make, alter and amend regulations.

68. The Governor in Council may make regulations as to the time within which anything hereby authorized shall be done, and also as to any other matter or thing which appears to him necessary or advisable to the effectual working of the several provisions of this Act. All such regulations shall go into force on the day of the publication thereof in *The Canada Gazette*, and they shall be laid before Parliament within fifteen days after such publication, or, if Parliament is not then in session, within fifteen days after the opening of the next session thereof.

Expenses.

69. All charges and expenses incurred by the Government in connection with the administration of this Act shall be defrayed out of such appropriations as are made by Parliament for that purpose.

Report to Parliament.

70. An annual report with respect to the matters transacted by him under this Act shall be made by the Minister to the Governor General, and shall be laid before Parliament within the first fifteen days of each session thereof.

REPORT

OF THE

DEPUTY MINISTER OF LABOUR

ON

INDUSTRIAL CONDITIONS

IN THE

COAL FIELDS OF NOVA SCOTIA

PRINTED BY ORDER OF PARLIAMENT

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1909

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OTTAWA, September 25, 1909.

To the Honourable W. L. MACKENZIE KING, C.M.G.,
Minister of Labour,
Ottawa.

SIR,—I have the honour herewith to report the result of an inquiry into the condition of the coal mining industry of the province of Nova Scotia, with special reference to the differences now existing between the operators of the different collieries and their employees on the one hand, and among the employees themselves on the other.

I left Ottawa for the province of Nova Scotia, as directed, on Monday, August 30, returning on Sunday, September 19, having in the meantime visited every important centre of coal mining in Nova Scotia, and discussed the situation in its general bearings with the managers of all leading collieries, with leading representatives, in most cases, of the workmen affected, and with prominent citizens, not as a rule directly connected with any one of the parties to the present differences, in each of the thirteen cities and towns, including the capital of the province, most closely interested.

The differences to which the inquiry had reference had already culminated in three strikes in different parts of the province, and in friction at other points with appeared to threaten an extension of the area of actual difficulties. I have in the course of my investigation endeavoured to ascertain the underlying causes for this unfortunate condition of affairs.

Number and Output of Nova Scotia Coal Mines.

It may be desirable, before setting forth the details of the report, to indicate briefly the importance to Nova Scotia of the coal mining industry, the number of collieries, the number of employees and amount of output respectively of such collieries, and the close relation of the coal output to the revenue of Nova Scotia consequent on the royalty paid to the government of the province on the coal produced.

The producing coal mines of Nova Scotia, together with the number of workmen employed at each mine, and the output respectively for the year ended September 30, 1908, are stated in the annual report of the Department of Mines of Nova Scotia for the year 1908 to have been as follows:—

Company.	County.	Production.	No. of Employees.
Dominion Coal Co.	Cape Breton	3,816,958	5,486
Nova Scotia Steel and Coal Co.	"	662,350	1,792
Cumberland Railway and Coal Co.	Cumberland	416,132	1,726
Acadia Coal Co.	Pictou	413,782	1,090
Intercolonial Coal Co.	"	315,590	937
Maritime Coal Railway and Power Co., Chignecto.	Cumberland	15,839	165
Maritime Coal Railway and Power Co., Joggins.	"	51,130½	149
Inverness Railway and Coal Co.	Inverness	283,704½	568
Port Hood Coal Co.	"	99,700	216
Other Companies.	Various	226,096	804
		6,299,262	12,933

The importance to Nova Scotia of the revenue derived by the provincial government from the coal industry is shown in the fact that whereas the whole revenue for the province for the year ending September 30, 1908, was $1,783,647, the amount received from the coal royalty was $616,933, or considerably over a third.

Coal Trade between Canada and the United States.

There is of course an intimate relation between Canada and the United States with respect to the coal trade. The coal supplies of Canada being found only at points in the extreme east and west, respectively, the United States product finds a safe market in the middle provinces of Canada, while it is able to compete with the Nova Scotia product as the latter reaches the limit of its Canadian market. The Nova Scotia operator finds some compensation in New England for the loss of his domestic market. The following shows where the coal of Nova Scotia was marketed during the year ending September 30, 1908:—

	Tons.
Nova Scotia	1,950,631¾
New Brunswick	510,330½
Quebec	2,047,638½
United States	499,634¼
Elsewhere	477,353¾
Total	5,485,588¾

It will be seen, therefore, that Quebec or the competitive portion of the domestic market consumes about one-third of the Nova Scotia product, while the Nova Scotia coal exported to the United States is less than ten per cent of the product, and for the year named, was less than half a million tons.

The United States product, on the other hand, was marketed in Canada during the year ended June 30, 1909, to the extent of *11,711,961 tons, of which 6,710,933 tons represented bituminous coal and 1,139,233 tons bituminous slack or dust, the remainder being anthracite and coke.

The Canadian duty on bituminous coal is 63 cents per ton, and on bituminous dust or slack and on charcoal 14 cents per ton. There is no duty imposed by Canada on anthracite or coke.

The United States duty on coal for many years prior to 1894 was 75 cents a ton, under which the export from Nova Scotia, after fluctuating violently between 254,750 tons in 1873, and one-half, one-third, and one-fourth that figure in the few succeeding years, was almost wiped out in 1892 and 1893 when the amount sent to the United States was respectively 13,833 tons and 16,099 tons. In 1894, the duty was made 40 cents, and so remained for three years, during which there was a marked increase in export. In 1897 the United States tariff imposed a duty of 67 cents on coal, and this remained unchanged until a few weeks ago, when a reduction was made to 45 cents. The figures of the coal export from Nova Scotia to the United States under the 67-cent tariff were as follows:—

* See Canadian Mining Journal, August 1, 1909.

	Tons.
1897	106,279
1898	98,027
1899	153,188
1900	624,273
1901	590,086
1902	751,382
1903	968,832
1904	713,170
1905	652,538
1906	769,775
1907	616,312
1908	499,634

It will be observed that the export reached its highest point in the year 1903, the increase of that year being obviously due to the strike prevailing in the United States collieries during the late months of 1902 and the early portion of 1903. Similarly, the marked falling off during last year is no doubt to be attributed to the decreased demand due to the business depression then existing in the United States, and which caused a falling off also in United States coal production to the extent of 70,000,000 tons. In spite of this decreased production the United States operators produced more than the demand, and a slump in prices followed, which was felt in Canada to some extent, and is no doubt responsible for the decline in production during the first half of the present year as compared with the corresponding period of last year in the output of the six largest mines of Nova Scotia, as shown in the following statement:—

January 1 to June 30, 1908	2,481,594 tons
" " 1909	1,994,673 "
Decrease, 1909	486,821 "

	1908.	1909.	1909, Decrease.
	Tons.	Tons.	Tons.
Dominion Coal Co.	1,570,258	1,209,991	360,267
Inverness Ry. and Coal Co.	128,291	97,487	30,804
Cumberland Ry. and Coal Co.	198,279	178,316	19,963
N. S. Steel and Coal Co	287,595	274,556	13,039
Acadian Coal Co.	162,648	124,199	38,449
Intercolonial Coal Co.	134,523	110,124	24,399
Totals	2,481,594	1,994,673	486,921

Decrease, 1909, under 1908 = 19·66 per cent of production.

Finally, so far as this aspect of the case is concerned, the following statement giving the total coal production of Canada by provinces, from 1904 to 1908, will show the relative importance of the coal mining industry in the different producing districts of the Dominion:—

Coal Production in Alberta, British Columbia and Nova Scotia for the five years 1904-8.

Year.	Alberta, short tons 2,000 lbs.	British Columbia, short tons 2,000 lbs.	Nova Scotia, short tons 2,000 lbs.	Total tons of 2,000 lbs.	Percentage of Increase Canadian Coal Production.
1904	728,931	1,862,625	5,596,241	8,187,797	
1905	811,228	1,945,452	5,646,583	8,403,263	2·63 p.c. inc. over 1904
1906	1,385,000	1,955,000	5,840,000	9,180,000	9·24 p.c. " 1905
1907	1,834,745	2,365,000	6,354,000	10,553,745	14·96 p.c. " 1906
1908	1,845,000	2,362,000	6,540,000	10,747,000	1·83 p.c. " 1907
Totals	6,604,904	10,490,077	29,976,824	47,071,805	

Alberta increase 1908 over 1904 . . . . . 1,116,069 tons or 153 p.c. increase.
British Columbia increase 1908 over 1904 . . . . 499,375 tons or 26·8 p.c. "
Nova Scotia increase 1908 over 1904 . . . . . 943,759 tons or 16·8 p.c. "

Labour Situation in Nova Scotia Coal Mines.

It was understood when the present inquiry was instituted that the existing difficulties in the labour situation in the coal mines of the province arose mainly from the struggle between two rival labour organizations over the enrolment of the employees and the question of recognition by the employing companies. The organizations are, respectively, the Provincial Workman's Association of Nova Scotia and New Brunswick, a body incorporated under the laws of the province of Nova Scotia, and the United Mine Workers of America, an unincorporated body having its membership chiefly in the United States where also are situate its headquarters.

The Provincial Workmen's Association of Nova Scotia and New Brunswick was organized in the year 1878, and from that date until the beginning of the present dissension was practically the only trade union known among the miners of the province. The organization, which was incorporated under the laws of Nova Scotia in 1881, is controlled by a Grand Council, and its chief office is the Grand Secretaryship, a salaried position, which has been for the last eleven years occupied by Mr. John Moffatt, Dominion, C.B. The majority of the miners have, as a rule, belonged to the Provincial Workman's Association, but its membership has fluctuated as the demand for organization appeared to be pressing or otherwise. It has been the practice in most cases for the operating companies to give formal recognition to the different unions of the Provincial Workman's Association, that is to say, to accept a committee representing the union as entitled to speak on behalf of the employees, and frequently, to make agreements with such bodies. In addition, several of the employing companies have made it a practice to collect the dues of the Provincial Workmen's Association; that is to say, on the written request, as a rule, of a particular employee the company will deduct from the wages of the employee the dues payable to the order; and as a matter of convenience in such cases, the custom has grown up whereby the company has made such collection from a list furnished by the Grand Secretary, the necessary changes being made regularly. The method of collecting dues is usually termed the 'check-off,' and, apart from what is known as the 'closed shop,' is perhaps the largest measure of recognition that is sought by unions or conceded by employers.

The effect of the system is of course to make the employer a party to building up the union, the regular deduction of dues in the way described tending to prevent delinquencies and generally to keep the organization compact. The point is one which has figured somewhat prominently in the present difficulties. Coal mining companies were specially empowered under the Nova Scotia law to make these collections, though not all companies have assumed the responsibility. There are, of course, other dues similarly collected, for hospital, doctor, &c., and in some cases, where the men ask, for church. The collection of union dues is understood to be a practice confined to the coal mining industry.

The United Mine Workers of America is an unincorporated body, comprising in its ranks the majority, probably, of the workers in the bituminous and anthracite mines of the United States. By many of the bituminous operators, the organization has received a recognition similar to that granted the Provincial Workmen's association by the Canadian operators; in the case of the anthracite operators, however, such recognition has been definitely refused. The body claims a membership fluctuating from three to four hundred thousand, not falling below the former figure. The order is governed by an executive board, termed 'international,' whose business is conducted from Indianapolis, Ind. The various local unions are grouped into districts which are given numbers and each district is entitled to a representative on the executive. The coal miners of eastern British Columbia and Alberta, for instance, have been during the last few years organized as local unions of the United Mine Workers of America and constitute District No. 18 of the order, with district president and secretary on salary, and a representative on the executive. The president of the organization for many years was Mr. John Mitchell, who became widely known during the great coal miners' strike in the United States in 1902, and on that and other occasions took high rank as a labour leader. Mr. Mitchell was a year ago succeeded in the presidency by Mr. Thomas L. Lewis, of Bridgeport, Ohio, a native of Wales. Mr. E. S. McCullough, of Bay City, Michigan, is vice-president of the order.

United Mine Workers of America Organizers in Canada.

Within the last year or two, the United Mine Workers of America began to organize local unions in Nova Scotia, the membership of which would necessarily be taken largely from the Provincial Workmen's Association, and it was from this movement that developed the friction now existing among those concerned in the industry. The following statement as to the local unions claimed by the rival organizations at the date of my inquiry will show the measure of success attained by the newcomer and the power of resistance exerted by that already in the field.

Provincial Workmen's Association Locals.

LODGE.	SECRETARY.	ADDRESS.
Ladysmith	Jos. Cubby	Westville, Pictou Co.
Buller	Isaac Fukes	Stellarton, Pictou Co.
Hastings	Wm. King	Port Hastings, Inverness Co.
Seaside	Jas. McLellan	Port Hood, Inverness Co.
Star	W. S. Walker	Inverness, Inverness Co.
Drummond	Arthur Davis	Sydney Mines, C.B.

LODGE.	SECRETARY.	ADDRESS.
Roberts	W. J. Rowayne	Sydney Mines, C.B.
Pretoria	Thos. Dolsay	Sydney Mines, C.B.
Liberty	Luke Gallvan	Whitney Pier, C.B.
Unity	Malcolm McNeil	Reserve Mines, C.B.
Golden Rule	George McLean	Dominion, C.B.
Kimberley	Peter Devoe	Dominion, C.B.
Progress	Daniel Hardy	Dominion, No. 4, C.B.
Equity	John A. McPherson	Glace Bay, C.B.
Ironsides	John Davis	Glace Bay, C.B.
Aberdeen	Jas. A. Campbell	Glace Bay, C.B.
Wilson	John P. Boutillier	Dominion, No. 6, C.B.
Island	Wm. Lockman	Bridgeport, C.B.
Keystone	Jas. McDonald	New Aberdeen, C.B.
Victoria	D. A. McNeil	Waterford, C.B.
Sampson	Pat. Burke	Louisburg, C.B.
Power	John Murphy	New Aberdeen, C.B.
B. Diamond	Leonard McGlauchlin	Parrsboro, Cumberland Co.
Strathcona	Jas. D. Ross	Westville, Pictou Co.

representing a total of 24 locals.

United Mine Workers of America Locals.

The United Mine Workers organization claims ten locals in the Glace Bay district for the thirteen mines controlled by the Dominion Coal Company, 1 at Morien, 2 at Sydney Mines, 1 at Inverness, 1 at Port Hood, all in Cape Breton, 1 at Westville, Pictou county, 1 at Springhill, 1 at Chignecto and 1 at Joggins, all in Cumberland county, representing a total of 19 locals.

These local unions are in the case of each organization of varying size, and may occasionally have no more than a nominal existence. This last description would appear to apply to the Provincial Workmen's Association local claimed for Port Hood, and the United Mine Workers local claimed for Westville. The membership, always more or less an uncertain quantity, is rendered particularly so at the present time owing to the keenness of the rivalry of the two organizations, and the quickness with which the situation changes.

State of Affairs at Different Mines.

It will be desirable, perhaps, at this point to set down concisely the exact situation at the properties of each of the different coal mining companies in Nova Scotia, with respect to the footing of the two workmen's organizations and the relations of the same with the operators.

1. *Dominion Coal Company's Mines, Glace Bay, C.B.*—Normal number of employees 5,486. The employees were all formerly members of the Provincial Workmen's Association, and an agreement between the company and the Provincial Workmen's Association was made under the Industrial Disputes Investigation Act in March, 1908, terminating December 31, 1909. Certain of the employees having subsequently joined the United Mine Workers of America, called for a new board under the Industrial Disputes Investigation Act to inquire into certain grievances, including a

claim for recognition of the new union. The board found against the claim, and the United Mine Workers of America called a strike on July 6. At the outset the output of the mines was reduced below one-third of the normal figure, but by the early weeks of September had increased to considerably over one-half the regular production. Military protection was called in at the outset of the strike, and several companies of the Royal Canadian Rifles are yet stationed in the district, under Lt.-Col. Fages.

2. *Nova Scotia Steel and Coal Company, North Sydney, C.B.*—Normal number of employees, 1,792. The employees were here, as in the case of the Dominion Coal Company, working under an agreement between the company and the Provincial Workmen's Association, made under the Industrial Disputes Investigation Act in August, 1908, for no stated period. As in the case of that company also, certain of the employees having joined the United Mine Workers of America subsequent to the conclusion of the agreement, they became parties to an application for a new board to which were referred various grievances stated to exist among the men employed at Florence Mine, not, it may be noted, at the mines generally, its grievances including a claim for recognition of the new union. The board found against the claim. No strike has been declared, and members of both organizations are working under the agreement with the Provincial Workmen's Association. No further difficulty seems probable.

3. *Inverness Railway and Coal Company, Inverness, C.B.*—Normal number of employees, 508. The company here had what is termed a 'closed shop' agreement with the Provincial Workmen's Association, dating back to 1906, the company agreeing to employ only members of that organization and to collect the dues for the lodges. Many of the employees joined the United Mine Workers of America and demanded then that the deduction of Provincial Workmen's Association dues should cease. The company claimed to be bound by its agreement with the Provincial Workmen's Association and discharged all who insisted on leaving the Provincial Workmen's Association. On July 9, the United Mine Workers of America declared a strike. The output was temporarily reduced to one-third, but by the early weeks of September had reached within a hundred tons daily of the average production, though the United Mine Workers organization claimed to be distributing relief to between two and three hundred men. In this case, the strike was declared without any reference to the Industrial Disputes Investigation Act. Military protection was asked and some companies of the Royal Canadian Rifles were sent to Inverness under command of Lt.-Col. Weatherbee.

4. *Port Hood Richmond Railway and Coal Company.*—Normal number of employees, 216. Work was being carried on in this case under an agreement effected in June, 1908, under the Industrial Disputes Investigation Act, between the company and the Provincial Workmen's Association. The employees recently went over in a body to the United Mine Workers of America, but are working under the terms of the agreement with the Provincial Workmen's Association. The company has made no formal acknowledgement of the United Mine Workers of America, and has refused to collect dues for it as was formerly done for the Provincial Workmen's Association. No further difficulty seems probable.

5. *Cumberland Railway and Coal Company, Springhill, N.S.*—Normal number of employees, 1,726. In this case, work was being prosecuted without any agreement, but substantially under the terms recommended by a Board of Conciliation and Investigation established under the Industrial Disputes Investigation Act in 1907 to adjust certain grievances, and against the findings of which the men had remained on strike for 13 weeks. The men, who had been at the time of this occurrence and for a considerable period subsequently, members of the Provincial Workmen's Association, afterwards gave their allegiance to the United Mine Workers of America, and called for a new Board under the Industrial Disputes Investigation Act, the grievances submitted including a demand for recognition of the United Mine Workers of America. The Board in this case did not find expressly against recognition, but took the ground rather that the question was one which should be left for determination between the company and its employees, and should not be dealt with by a Board. As a result of the dispute, a strike was called at Springhill on August 10, with the result that the mines have been closed down from that date, and the striking miners are receiving relief from the United Mine Workers of America. The strike is likely to be indefinitely prolonged.

6. *Acadia Coal Company, Stellarton, Pictou Co., N.S.*—Normal number of employees, 937. The conditions here are precisely as described in the case of the reached in May, 1908, between the company and the Provincial Workmen's Association while a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act was in process of establishment. The United Mine Workers of America have made little impression on the employees at this point, and there appears to be no likelihood of trouble. The company recognizes the Provincial Workmen's Association by meeting its committee, but does not collect the dues.

7. *Intercolonial Coal Company, Westville, Pictou, N.S.*—Normal number of employees, 937. The conditions here are precisely as described in the case of the Acadia Coal Company, the present working agreement with the men being brought about in the same way.

8. *Maritime Railway and Coal Company, Chignecto, Cumberland, N.S.*—Normal number of employees, 165. Here work was being pursued under an agreement between the company and the Provincial Workmen's Association, reached before a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act in July, 1908, and not terminable until July 31, 1910. The men have since become members of the United Mine Workers of America, but are working under the old agreement. The company had collected dues for members of the Provincial Workmen's Association, but does not do this at present for the United Mine Workers, and has not in any way formally recognized that body. Men seem somewhat disposed to demand recognition here, and there would be trouble but for the indisposition of the United Mine Workers to fight small mines.

9. *Maritime Railway and Coal Company, Joggins, Cumeberland Co., N.S.*—Normal number of employees, 151. Conditions are very similar here to those at the same company's mine at Chignecto, save that the working agreement was not made under the Industrial Disputes Investigation Act. The men are all members of the United Mine Workers of America, but have received no formal recognition. There

are a number of men here who have been weeded out from the employees because given to agitation, and this increases the possibilities of friction at this point..

10. *Other Points.*—The remaining mines are places of small output, and it is not understood that lodges of either organization have been established there.

The General Situation Reviewed.

It will be seen from the above statement that there are three coal mining strikes at present in progress in the province of Nova Scotia, namely, at Glace Bay, Inverness, and Springhill, all of them arising out of the struggle between the rival unions. The strikes at Glace Bay and Springhill took place after the disputes to which they had reference had been investigated by a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act. The strike at Inverness took place without any refereneee to a Board under the Industrial Disputes Investigation Act, and would appear therefore to be directly opposed to the spirit and terms of the Act. At Glace Bay, the strike appears to be practically broken, though the production is still below normal, and many employees are receiving relief; the military force is likely to be retained for some time to come. At Inverness, where the proportions are smaller, the strike is yet more definitely broken, but there is still a considerable number of men on the United Mine Workers of America relief lists, and military protection is still considered desirable. At Springhill, no attempt is made to work the mine, and operations apparently at a standstill for an indefinite period, with a promise of the worst results to the industry and community concerned.

History of the Struggle.

It will be desirable to follow somewat more closely the struggle which has resulted in such wholesale disaster to the coal mining industry of Nova Scotia.

As already pointed out, the United Mine Workers of America has for some years claimed a district in western Canada, and a representative from that district has sat on the International Executive Board. The representative in question is Mr. Peter Patterson, at present domiciled at Westville, N.S., but for some years prior to 1908 a resident of Fernie, B.C. Mr. Patterson is Scottish by birth, but came to Nova Scotia at the age of eleven, and from that time worked in the mines of the province. Mr. Patterson was the representative of western Canada on the International Executive at the same time of the strikes in 1906 at Fernie, B.C., and Lethbridge, Alta. The first activity of the United Mine Workers of America in Nova Scotia would seem to have been in 1906, when at the meeting of the Grand Council of the Provincial Workmen's Association at Halifax in September of that year, Mr. Patterson asked and received permission to address the Council on 'the benefits of affiliation' with that order. A few months prior to Mr. Patterson's visit and address a member of the United Mine Workers of America International Board had visited Nova Scotia to look into the question of extending the organization into the province, but had decided, according to Grand Secretary Moffatt, that the Provincial Workmen's Association being so well organized all over Nova Scotia it was not desirable for the United Mine Workers of America to attempt organization there. However, after Mr. Patterson's address to the Grand Council, the matter seems to have

been kept alive, and gradually small parties of the United Mine Workers of America sympathizers began to appear in the different Provincial Workmen's Association lodges. Many people who are entirely opposed to the United Mine Workers of America and wholly friendly to the Grand Secretary of the Provincial Workmen's Association, state that that official's extended retention of office was a source of discontent among a number of miners. He had become well known to the officials of a number of companies, including the Dominion Coal Company, and had grown into the habit of dealing with the companies on behalf of the men without always going through the form of consulting the men's committees. In this and other ways he had aroused the suspicion and jealousies of a number. In addition, politics came in. Moffatt is frankly a Liberal, but claims not to have taken unfair advantage of this fact in his capacity as Grand Secretary. He was opposed for Grand Secretary some year ago by Mr. James Madden, now counsel for the United Mine Workers of America, and Conservative member of parliament for the riding.

It would not, of course, be proper for me as a public servant, to discuss this aspect of the question other than to suggest that it has apparently had an important bearing on the whole difficulty, and that it is freely asserted by members of both political parties that certain gentlemen have sought political advantage in swelling the incipient agitation in favour of a transfer of allegiance to the United Mine Workers of America into a movement big enough to secure a Grand Secretary of friendly views in matters political. Moffatt states that he realized that it would have been well for the organization if he had retired, he having been there long enough, and he had thought of withdrawing at the annual meeting of September, 1908, but that when he found the movement afoot to switch the whole organization over to the United Mine Workers of America and to bring politics into it, he decided to stay on. No attemtp was made to contest his election.

The Provincial Workmen's Association Referendum.

In the meantime the agitation for affiliation to the United Mine Workers of America or for some other connection with that order had gained considerable ground. Mr. Patterson had remained almost continuously on the ground, and had been assiduous in pointing out the advantages of the larger organization. At a special meeting of the Provincial Workmen's Association Grand Council held in Halifax in May, 1908, it was resolved to take a referendum vote on the question of affiliation or amalgamation with the United Mine Workers of America. The referendum was duly taken and was in favour of amalgamation by about 2,800 to 2,400.

At the following annual meeting of the Grand Council in September, 1908, the Council decided by a vote of 49 to 28 that the action taken at the May meeting was illegal 'the delegates having received no instructions from their lodges to bring about the referendum vote.' On the general subject of the movement for amalgamation with the United Mine Workers of America, the following resolution was passed by a vote of 47 to 7:—

> 'Whereas during the year much agitation has been caused by some of the lodges of the Provincial Workmen's Asociation with the purpose to destroy the association by bringing in the United Mine Workers of America: And whereas this agitation tends to destroy the usefulness of the association and

also burdens it with unnecessary expenses: Be it hereby resolved that this Grand Council deems the agitation for any other labour organization sufficient cause for the revoking or suspension of charters of lodges so agitating, and gives the Grand Executive authority to revoke the charters of such lodges. And we further recommend that no agitation be permitted in any subordinate lodge.'

It is probable that when the Grand Council ordered the referendum it had been able to form no idea of the strength of the amalgamation movement, the result of which was a genuine surprise. The Council got out of the difficulty by a technicality, which has not, of course, escaped being termed a subterfuge. It was realized by the Council that the existence of the Provincial Workmen's Association was at stake and the success of the United Mine Workers of America, it was held, would have in all probability entailed in the immediate future a successful strike for recognition or a complete tie-up. The Grand Council regarded its action as necessary to save the situation.

Leaders in the Agitation.

The movement towards the United Mine Workers of America appears, therefore, to have been independent of any agitation from the United States, save in so far as this may be supposed to have been rendered by Mr. Patterson, an international officer, but a British subject and a Canadian by long residence. Springhill appears to have been one of the first places definitely to organize a United Mine Workers of America lodge, and took the steps in December, 1908, other places rapidly following its example.

The agitation and organization appear to have been carried on by Canadians only until last spring, when on March 2, Mr. H. Bousfield, of Kansas, a member of the International Board for District 14, came to Canada to help in the extension of the United Mine Workers of America. Like so many of the other leaders in trades unionism on both sides of the line, Mr. Bousfield, though an American citizen, was born in Great Britain, being a native of Durham county, England.

Others prominent in the agitation were Messrs. D. McDougall, of Glace Bay, district president, a native of Cape Breton and an employee of the Dominion Coal Company for many years until in March last he was dismissed by the Coal Company; J. B. Lachlin, District Secretary-Treasurer, a former employee at the Sydney Mines; James D. MacLennan, representative of the district on the International Board, and one of those who regard themselves as having especially suffered from discrimination at the hands of the Dominion Coal Company on account of having joined the United Mine Workers of America; J. B. Moss, Springhill, District Vice-President, formerly check-weighman at the Springhill Mines, also formerly a Grand Master of the Provincial Workmen's Association; E. S. Sutherland, a native and resident of Nova Scotia, international organizer; and David Neilson, Scottish by birth, and many years resident in Nova Scotia, district organizer.

The only American citizen besides Bousfield who had stayed for any considerable period in Nova Scotia in connection with the struggle is Mr. E. S. McCullough, Vice-President of the United Mine Workers of America, who came on an official visit on July 2 and stayed until August 7, visiting various points in the province. Mr. T. L. Lewis, President of the United Mine Workers of America, also visited the province

shortly before the declaration of the strike at Glace Bay, and discussed the threatening trouble with many prominent persons, including Premier Murray at Halifax, and Mr. J. K. Cowans, Manager of the Cumberland Railway and Coal Company, at Springhill. Mr. Duggan, General Manager of the Dominion Coal Company, refused, however, to meet Mr. Lewis.

It is to be noted in connection with the above list of men prominent in the agitation that Mr. MacDougall, now President of the District Council of the United Mine Workers of America, was a member of the sub-council of the Grand Lodge of the Provincial Workmen's Association in March, 1908, when the existing agreement between the Dominion Coal Company and its employees was concluded before a Board of Conciliation and Investigation established under the Industrial Disputes Investigation Act, and presided over by Professor Adam Shortt, and in that capacity was one of a number signing an address of congratulation under date of March 15 to the members of the Board on the successful issue of their labours. Ronald Nicholson, another member of the sub-council signing the address in question has likewise become since then a prominent United Mine Workers advocate. Jos. B. Moss, now perhaps the most strenuous advocate of the United Mine Workers of America at Springhill, was formerly grand master of the Provincial Workmen's Association.

It will be desirable now to set down briefly the leading circumstances connected with each of the three strikes.

THE STRIKE AT GLACE BAY.

The rupture between the Dominion Coal Company and a number of its employees is the most important of all the developments from the struggle between the unions, both because of the number of men directly concerned and the large industrial interests involved, also because it is generally conceded that the result elsewhere in Nova Scotia, with the possible exception of Springhill, will depend upon the outcome at Glace Bay. The smaller operators, in almost every instance where they have come into contact with the struggle have assured their employees that the result at Glace Bay will determine their own attitude to the United Mine Workers of America. This course has been adopted because of the apparent futility of the smaller operators taking a stand either way unless it is in agreement with the big companies. As a rule, this course seems to have satisfied the men, though there have been grumblings here and there.

The agreement above mentioned between the Dominion Coal Company and its employees is not terminable until December 31, 1909, but in the spring of the present year, on the application of certain of the employees a new Board of Conciliation and Investigation was established to investigate various grievances alleging discrimination against them as members of the United Mine Workers of America, of which body they had now become members, and a failure on the part of the company to receive the committee of that body or otherwise to recognize it. The Board to which the dispute was referred was composed of His Honour Judge Wallace, of Halifax, chairman, Mr. G. S. Campbell, a leading business man of Halifax and Mr. D. MacDougall, President of the District Union of the United Mine Workers of America.

The Board found that there had been no improper discrimination, and defended the company in giving preference in the matter of employment, under certain circum-

stances, to members of the Provincial Workmen's Association, the company having definitely refused to recognize the United Mine Workers of America. On the general question of recognition, the Board found against the men, on the ground that safety to the mutual interests of the company and its employees lay in refusing recognition to an organization controlled by foreign officials sitting at Indianapolis.

The Board's Finding on the Question of Recognition.

The terms of the Board's conclusions on this point are sufficiently important, it is believed, to be included in the present report. They were as follows:—

> The most important question before the Board was that of recognition of the U. M. W. by the company. Here there is no question of agreements, it is purely a matter of policy. The U. M. W. claim the right to approach the management by committee as is done by the P. W. A. The company refuses to recognize that right. It may be admitted that there are advantages in dealing through committees with a recognized labour union, but the company find themselves face to face with two rival labour organizations, and state that it would be impracticable to deal with two separate committees whose contentions might be at variance with each other. The principal reason, however, why the company refuses to recognize the U. M. W., is that they are practically a foreign organization, having dangerous and menacing powers under their constitution. It is true that the U. M. W. is international in membership, but the principal executive officers and the great bulk of the members reside in the United States. The company points out that this has a very serious bearing on the coal trade of Nova Scotia inasmuch as the American operators are making serious inroads into Canadian markets. It appears in the evidence of Mr. Duggan that since 1906, sales to the St. Lawrence markets of American bituminous coal have increased 531,000 tons. As the St. Lawrence trade forms the chief market of the Dominion Coal Company, anything that tends to interfere with it would naturally affect the interests both of the coal company and the miners they employ. The Board considers this objection of the coal company a very grave one, because with one foreign organization controlling the miners, labour difficulties in the United States would almost certainly lead to complication in Nova Scotia. If through labour troubles in the United States a market opened up there for Nova Scotia coal at profitable rates, pressure would undoubtedly be brought to bear on the miners in Nova Scotia to prevent exports of our coal to the United States. It is true that the U. M. W. is recognized in Western Canada, but there the conditions are different because while Nova Scotia mines are finding it increasingly difficult to hold their own against the United States coal in the St. Lawrence trade, the Canadian mines of the west not only hold their own market, but in many cases can afford to export to the United States notwithstanding the duty. Another and most serious objection to recognizing the U. M. W. arises in connection with certain clauses in their constitution. One clause of that constitution states that local unions shall be composed of miners, mine labourers and other workmen, skilled and unskilled, working in and about the mines, except mine managers, top boss, and persons engaged in the sale of intoxicating liquors.' Under this rule every man except the superintendent and manager of the mine is eligible for membership in the union. This the Board considers to be a dangerous and unusual rule and not in accordance with the custom in Great Britain and other mining centres. It is also in conflict with a rule of the Dominion Coal Company, a special reference to which is made in an earlier paragraph of this report.

But the most objectionable clause in the constitution is as follows:—'The international officials shall at any time they deem it to the best interests of mine workers in a district that is idle, for just and sufficient reasons order a suspension in any other district or districts that would not in any way impede the settlement of the districts affected, provided that such action would conserve to the best interest of the U. M. W. of America.' This rule makes it quite possible for the executive of the Mine Workers, whose head office is in Indianapolis, Indiana, to proclaim a strike in Nova Scotia if they considered it to be in the interest of the U. M. W. as a whole. Inasmuch as all the dominating interests of the U. M. W. are centred in the United States, it seems clear that the policy of the organization would be governed by the interests of the mines there. Consequently it is not unreasonable to anticipate that on some future occasion, although labour conditions in Nova Scotia might be satisfactory, it would be to the interest of the U. M. W. as a whole to proclaim a strike in Nova Scotia. That is a power which in our opinion no foreign body should be able to exercise over our industrial interests in Nova Scotia. The Board considers that the coal company is amply justified in refusing to recognize any organization that could exercise such a dangerous and continually menacing power. Foreign officials sitting in Indianapolis should not have the power to decree that Nova Scotia miners, even when without a grievance, must stop working, and thereby cripple a great Nova Scotia industry.

The Minority Report.

The report was signed by Judge Wallace and Mr. Campbell, while a minority report was submitted by Mr. D. MacDougall, the member of the Board nominated by the men. Mr. MacDougall took the ground that there had been violent discrimination shown against members of the United Mine Workers of America. Mr. MacDougall combatted the contention of the company that the recognition of the United Mine Workers of America would in any way endanger the Montreal market, and on the questions of the right of 'deputy overmen' to join a union and of the recognition generally, he found as follows:—

One more point coming to mind and which has been put forward was the fact that the Dominion Coal Company discharged some of its employees because they were shotfirers,or what they call 'Deputy Overmen,' and they contend they should not belong to any Union. We take the stand that men of this class should not be hindered from joining any society they wish, from the fact that the union themselves places restrictions on those who should belong to labour unions, and further the special rules of the Company have to be posted up in prominent places for the guidance of the workmen according to the Coal Mines Regulation Act of the province of Nova Scotia, and their special rules so posted up do not say that these people are officials. We take this point that if the Dominion Coal Company continues creating officials the men will all be in the role, thereby having no room for any to escape, and that being a fact Prof. Shortt's argument in *Labour Gazette* of January, 1909, page 697, has no foundation. We therefore submit to the department that the Coal Company, or any other company, has no jurisdiction to say if a man should belong to a society or not—more particularly a union.

The only matter remaining is a recognition of our union, which I personally and in behalf of the men cannot see any just reason for the company not receiving a committee from us to adjust any grievances that may arise with our men. As to cases where the matter of recognition has been accorded

> the United Mine Workers of America, we would quote reports of 1907-1908 of the department at pages 336, 337 and 351, which in our opinion is the only way this matter can be settled. We therefore urge a recognition by committee as shown by Mr. Mitchell, Mr. Duggan and other officials, that dealing with a committee is the most satisfactory method of adjusting a grievance, and we, therefore, strongly urge and recommend for the reasons given. For the other reason, that if this is not done we fear great friction may occur and great trouble may be brought on by members being discharged. For example, a member might be discharged for a sufficient cause and under circumstances that no union would defend him, but if he came to his local and put his own colouring to the story it might be ragarded by the local as discrimination, and since this question has now been referred to a Board the whole union might strike, whereas, if the case was gone over by the committee and the manager, the member might be held to be in the wrong and trouble avoided, and at least this would give time to allow the parties to cool off.

This report was received in the department on April 16, and was immediately forwarded to the respective parties.

Visit of President Lewis to Canada.

The danger of the impending strike was freely discussed in the press during the next few weeks. About the end of May, Mr. T. L. Lewis, President of the United Mine Workers of America, visited the mining districts of Nova Scotia, and, at Halifax, was for several hours in conference with Premier Murray. On June 7, Mr. Lewis gave out an interview in the Halifax *Herald,* and intimated that unless the coal companies 'recognize the right of their employees to join any labour organization they wish and adjust the many grievances the men complain of, it will lead to but one result and that is a suspension of operations.' In the same interview, Mr. Lewis is reported as stating 'The United Mine Workers as an organization is opposed to strikes as a method of settling disputes and never in its twenty years of existence has ordered a sympathetic strike, regardless of what any one says to the contrary.'

It may be well at this point to refer also to President Lewis' visit to Springhill, though this does not bear immediately on the Glace Bay strike. Mr. Lewis was in Springhill on June 6, and on that day met Mr. Cowans, General Manager of the Cumberland Railway and Coal Company. Mr. Cowans assures me that he had not intended meeting Mr. Lewis. The U.M.W.A. President, however, came right to his house, and without being discourteous, Mr. Cowans could not, he says, do other than talk with him, though he was careful to explain that he would not meet Mr. Lewis as the official representative of the United Mine Workers of America. Mr. Cowans says that so far as his conversation went with Mr. Lewis, he found the United Mine Workers' president very reasonable and particularly disposed to give heed to the bad financial showing of the company and the large preponderance of unproductive labour in the company's mines, admitting that under such conditions no mine would pay. At a mass meeting of the men that evening, Mr. Lewis spoke reasonably enough, as reported to Mr. Cowans, and as printed in the Halifax *Herald,* and dwelt particularly on this point of unproductive labour, insisting that instead of the proportion of miners at Springhill being one-fifth only of the 1,600 employees, the proportion should be two-thirds miners if the mine was to give a living wage and expenses.

Mr. MacDougall's Letter to the Operators.

The following letter was sent out by Mr. Daniel MacDougall, as President of the District Union of the United Mine Workers of America, under date of June 23, to each of the managers, owners and proprietors of coal mines in Nova Scotia:—

Glace Bay, June 23.

Dear Sir,—It is hardly necessary to call your attention to the fact that there is a general feeling of discontent among the mine workers of Nova Scotia. This has been apparent to every one for months. It is our desire that this feeling of unrest among the mine workers should be eliminated, and we are firmly of the opinion that it can be if the mine owners and their employees, through their representatives will meet in conference for the purpose of having a better understanding.

You are respectfully invited to attend a conference of the representatives of the operators and miners of Nova Scotia to be held in the city of Sydney, July 2, at 2 p.m., at Y.M.C.A hall. The object of this meeting would be to discuss the situation and to endeavour to arrive at an understanding that would be mutually beneficial to the mine owners and mine workers of the province of Nova Scotia. There is no reason why we should have any serious disagreement, and we believe that specific wage contracts with rules governing the conditions of the mine workers, as well as mine managers, would be highly beneficial to the mining industry of this province. We sincerely desire that you be present, and we again extend to you an invitation, and respectfully urge you to give the question your careful and favourable consideration.

(Signed) Dan. McDougall,
President.

It does not appear that any replies were received by Mr. MacDougall from the operators. The latter, it may be added, had met in conference some time during the month of May and decided on united action in the direction of non-recognition.

A Strike Imminent.

The company received the following communication from Mr. D. MacDougall on July 3:—

Glace Bay, July 3, 1909.

G. H. Duggan, Esq.,
General Manager and 2nd Vice-President,
Dominion Coal Company, Ltd.

Dear Sir,—So far we have been unable to arrange a meeting between your company and our executive. We are now addressing this last request to you that you meet us on Monday, the 5th instant, to discuss the matters of difference between your company and ourselves and try if possible to reach some permanent understanding.

We are anxious that you should comply with our request in order that trouble may be averted and we shall be glad to meet your convenience in regard to place and hour of meeting.

We shall be obliged, however, to act on the instructions given at our convention yesterday, and unless you agree to meet us before 2 o'clock

Monday afternoon, the inevitable result will follow that our members will cease work on the 6th day of July A.D., 1909.

Trusting this latter course may be avoided.

We remain,
Yours truly,

District No. 26, U.M.W.A.,
(Signed.) per DAN. MCDOUGALL,
District President.

Dominion Coal Company's Notice.

No answer appears to have been returned by the company to this communication, but the Dominion Coal Company a day or two later posted the following notice to their employees in the various collieries:—

Whereas Daniel McDougall, District President of the U.M.W.A. has made public announcement through the press that if the coal companies' representatives do not meet the Executive of the U.M.W.A. on Monday and accede to certain demands a strike will be called on Tuesday morning, the sixth instant, these demands are stated to be questions of higher wages, shorter hours, better conditions generally and recognittion; and whereas the Dominion Coal Company is determined that it will not recognize the United Mine Workers of America; and whereas this company has an agreement with its workmen through the Provincial Workmen's Association to continue the rates and conditions of employment now in existence until December 31, 1909; now, therefore, this company will not accede to any of the demands of the United Mine Workers of America, and it is the intention of the company to mine and ship coal with the aid of the men who are loyal to their undertaking. In order that this may be done, the company will extend all the protection in its power to the persons and families of men who continue to work, and in addition has called upon the civil authorities to afford full protection.

The company gives notice to all its employees that under the Industrial Labour Disputes Act, 1907, it is illegal for men to go on strike without 30 days' notice of the demand for a change in wages or hours, and every man going on strike in contravention of this Act is subject to a fine of $10 to $50 for each and every day he is on strike and will be treated as no longer in the employ of the company as regards house, house coal, or any other privilege they now enjoy.

The notice added:

That if any man does not report for work on Tuesday morning, the 6th instant, he is liable to be regarded as a striker and treated as such.

Abstracts from the Industrial Disputes Investigation Act were appended to the notice and the whole was signed by G. H. Duggan, 2nd Vice-President and General Manager of the Dominion Coal Company.

The Strike Called.

On Tuesday, July 6, the strike was called. The highest point of summer output of the Dominion Coal Company's mines is 13,500 tons, but this point had not been attained during the few days immediately preceding the strike. The number of men actually engaged at the mines immediately prior to the strike was placed at 5,280.

The production on the Saturday preceding the strike was returned by the company at 11,085 tons, and on the following Monday, at 9,051 tons. On Tuesday, the day of the strike, the output fell to 5,609 tons, and was still further reduced on the days immediately succeeding, the production for Wednesday, June 7, being down to 3,671 tons, and for Thursday, June 8, 3,014 tons. This was the lowest point reached.

Daily Output at Mines.

The members of the Provincial Workmen's Association remained at work, and their numbers were steadily increased by accession from the ranks of the strikers and by labour brought by the company from other points. The military protection given the district in response to the requisition of Judge Finlayson on July 7 no doubt contributed to this result. The record of the daily output covering the period of the strike and continued until the second week of September, as furnished by the company, shows a steady growth in production, the figures being as follows:—

	July.		August.		September.	
	Date.	Output.	Date.	Output.	Date.	Output.
	1	–				
	2	8,588				
	3	11,085				
Sunday	4	–	1	–		
	5	9,061	2	5,048		
	%6	5,609	3	5,200		
	7	3,671	4	5,275	1	5,968
	8	3,014	5	5,814	2	6,811
	9	3,031	6	5,948	3	7,035
	10	3,311	7	5,566	4	6,337
Sunday	11	–	8	–	5	–
	12	3,760	9	5,880	6	Labour Day
	13	3,842	10	6,141	7	6,692
	14	4,037	11	6,373	8	7,088
	15	4,215	12	6,494	9	
	16	4,496	13	5,853	10	
Pay day	(17)	3,975	(14)	4,699	11	
Sunday	18	–	15	–		
	19	4,259	16	5,517		
	20	4,966	17	5,641		
	21	4,821	18	5,806		
	22	5,210	19	6,138		
	23	5,431	20	6,184		
	24	5,395	21	6,123		
Sunday	25	–	22	–		
	26	5,615	23	6,476		
	27	5,729	24	6,536		
	28	6,067	25	6,838		
	29	5,913	26	7,101		
	30	5,866	27	7,180		
Pay day	(31)	5,325	(28)	5,910		
Sunday			29	–		
			30	6,159		
			31	*4,578		

% Strike commenced. * No. 1 Colliery idle on account of funeral.

Requisition for Military Protection.

On Wednesday, July 7, some disturbance occurred at Collieries Nos. 2 and 3 as the non-strikers proceeded to work. Stipendiary Magistrate MacDonald read the Riot Act at No. 2, and General Manager Duggan appealed to the mayor of Glace Bay, Mr. John Douglas, for military protection, but the mayor refused, declaring that the civil authorities were fully able to cope with the situation. The mayor accordingly appointed a number of special constables, a number of which it appears were drawn from the ranks of the strikers. The mayor subsequently in conversation with me, admitted that this was the case, and inevitably so, in view of the hurry with which the specials were sworn in, nor did the mayor consider that such a point was a matter of serious objection. The company, in the meantime, appealed to County Judge Finlayson, and Judge Finlayson, on Wednesday, July 7, signed a formal requisition for military protection, which was forwarded to Colonel Humphrey, D.O.C., at Halifax. The D.O.C. referred the matter to the Department of Militia and Defence at Ottawa, and was told that if the requisition was in proper form there was no discretionary power on the part of the forces. Arrangements were accordingly made to send about five hundred men from the Royal Artillery and Royal Canadian Regiment, under command of General Drury, and these troops reached Glace Bay on Thursday, July 8. Mayor Douglas then telegraphed the following message to the Department of Militia, the Secretary of State, and the officer commanding the forces at Halifax:—

> As mayor of the town, I strongly protest against the militia being sent to Glace Bay under present existing conditions in the town of Glace Bay, as I consider that the situation here is not beyond the powers of civil authorities to suppress and to prevent disorder, as required by section 80 of the Militia Act.
>
> Further, the town council of Glace Bay at its regular meeting to-night, endorsed the position by resolution, and I hereby notify you that the town will repudiate any expenses or charges on account of or incidental to the sending of the militia and their stay here.
>
> (Signed) JOHN DOUGLAS, *Mayor.*

On July 12, the Grand Secretary of the Provincial Workmen's Association addressed the following telegram to the Minister of Militia at Ottawa:—

> The U. M. W. who are on strike here and who have indulged in a series of riots, are forwarding a petition to you, asking that the militia be withdrawn.
>
> On behalf of the P. W. A. representing about one-half of the workers of the collieries, we ask your protection for our families, our homes and our services.
>
> In our opinion the withdrawal of the militia would seriously imperil these and would result in bloodshed and loss of property.
>
> The various lodges of our association have discussed the matter and have passed the attached resolution which shows the appreciation of the military. The resolution follows:—
>
> Resolved that members of the Progress, Ironside, and Aberdeen lodges who are forcibly prevented from going to work, go to work to-morrow and continue at work under the protection of the military, the civil authorities having been unable to suppress the disturbances caused by the strikers.
>
> Further resolved that these lodges view the appointment of members of U. M. W. as special constables to protect the lives of P. W. A. as a huge farce.

as the U. M. W. are fighting the P. W. A. as ardently as they are fighting the Dominion Coal Company.

Copies of resolution to be sent to Mayor Douglas, of Glace Bay, and the public press. This resolution is signed by the secretaries of thirteen lodges.

Official Statement by Minister of Labour.

On July 13, the following official statement as to the attitude of the Department of Labour was made public by direction of the Minister of Labour:—

> The dispute at Glace Bay between certain of the employees of the Dominion Coal Company, members of a local union of the United Mine Workers of America, and the said company, has already been the subject of government intervention by reference under the Industrial Disputes Investigation Act, and the report of the Board appointed has been given to the public in accordance with the provisions of the Act.
>
> Were parties to industrial disputes encouraged to look indefinitely to government intervention, or given reason to believe that the findings of boards appointed expressly for the purpose of inquiring into existing troubles would be subject to further revision by the minister or other officer of the Department of Labour, it would seriously prejudice the effectiveness of the work of the boards appointed under the Act and the value of their findings, and might only serve, having regard to industrial disputes generally, to prolong rather than minimize the period of industrial strife.

Question of Order in Glace Bay.

Many arrests were made from day to day by the special constables of the company, many of whom had been sworn in. The charges were chiefly of minor disorders and loitering, which last was illegal after midnight under a city by-law. The strikers claimed to be in this way prevented unfairly from doing picket duty. On July 27 an attempt was apparently made to dynamite the residence of Mr. Robert Simpson, Manager of Reserve Colliery. The verandah and all the windows of Mr. Simpson's house were badly shattered. On the following day there was a somewhat similar occurrence at a house at Lingan Lake, occupied by a coal cutter who was coming to work. No person was injured in either case.

I arrived at Glace Bay on September 1, and during a stay of several days in the town, made close observations of the general bearing towards each other of the soldiers and the citizens, and as to the apparent necessity for the continuance of protection. The latter point is, perhaps, a difficult one on which to express an opinion. As to the general bearing of the militia, the men appeared to be quiet and civil, and on the whole to have a certain popularity with the citizens, regardless of strike sympathies. Mr. Madden, M.P., counsel for the United Mine Workers, in conversation with me, complained that the soldiers had been high-handed in several cases, and that many of them were in the habit of using very foul language, but he subsequently admitted that this was confined to the detachment that had been stationed at Reserve Mine, and that the situation had subsequently improved.

The streets of the towns affected wore the usual appearance of a district where a strike is in progress, gangs of idle men being very numerous. There was no suggestion of disorder, as a rule, but a good deal of drunkenness was noticeable, this being the more surprising in view of the prohibition of licenses in the various coal mining

towns. There being thirteen different mining properties, covering a district embracing many miles in length and breadth, the soldiers were divided into numerous detachments accordingly, and no large force was visible at any one point. Colonel Fages, who was in command at the time of my stay in the vicinity, informed me that arrangements were then under way to reduce the number to somewhat under one-half the original force, and this reduction has since been carried out, so that the number of troops now in the district is less than 200.

Mood of the Strikers.

The prevailing mood of the strikers, so far as could be gathered from casual conversation with groups of them, was one of grim determination to persist in the demand for recognition. The company was roundly denounced for breaches of faith and unfair treatment of the men, and the Provincial Workmen's Association was stated to be too weak to enforce the demands of the men. The men here, and at other points at which I have discussed the subject, regard the matter of joining the United Mine Workers as one in no way differing from that of their fellow-workmen joining other international bodies. Again and again, in reply to my inquiries, they have insisted that nothing that would be required of them as members of the United Mine Workers would be allowed to influence their duty as Canadian citizens. The theory, sometimes suggested, that the United States operators are in any way behind the movement to extend the United Mine Workers in Nova Scotia is frankly scoffed at. It is quite evident that the men look at the refusal of recognition as a limitation of the rights usually conceded, and do not look below the surface. Most of the strikers are Nova Scotians; a very large proportion natives of Cape Breton. There are few foreigners in the district. The men admit that for the most part they have never been on strike against the Dominion Coal Company before, but urge as a reason that the Provincial Workmen's Association was not strong enough to back them. The inference is that, so far as many of the men on strike are concerned, they look forward definitely to securing by means of the United Mine Workers a considerable change in conditions. The strikers insisted that there was no necessity for the troops. I observed, however, a man returning from work in charge of a special constable, who conducted him to his house in a street occupied chiefly by strikers. This is frequently done, and the conclusion is inevitable that a measure of special protection is necessary.

At the time of my visit the company was actively carrying out the policy of evicting strikers from the houses owned by the company. The United Mine Workers officials were finding houses for those displaced, but expected to be under the necessity of shortly calling for tenders for lumber to build temporary quarters for those evicted. The company is using the eviction policy as a means of inducing men to return to work, not without considerable success. The United Mine Workers is fighting all eviction cases, and not more than seven or eight are got through the court during a day on an average.

Attitude of Officials on Either Side.

I had numerous talks with Mr. G. H. Duggan, General Manager of the Dominion Coal Company, and with the officials of the United Mine Workers of America, Patter-

son, Bousfield, Nicholson, &c. MacDougall was absent in Newfoundland at the time of my visit; he was understood to be doing his best to prevent labour coming to the company from that quarter. The United Mine Workers officials talked confidently of winning out, and insisted that the published statements of the company from day to day as to output were untrue. They declared also that the company was taking out coal under very improper conditions, constituting great danger to the mine. I subsequently spoke with Mr. Hiram Donkin, Deputy Minister of Mines, on the last point, and received an emphatic assurance that there was no foundation for such a statement. As to the returns of output, there is presumably no question of their accuracy. Mr. Duggan showed me the returns as they were received by him from the various departments. I made this point clear to the officers of the United Mine Workers of America.

The officials were disposed to negotiate with the company if any opportunity had been found, and insisted that if they could only get together there was no doubt of their being able to reach an agreement. One of their number suggested that a new organization might be formed, called the United Mine Workers of Nova Scotia, to which there could be no objection, and that this body might ally itself privately with the United Mine Workers of America, without incurring any ill-will from the company. The suggestion was, no doubt, impracticable, and was not made in the presence of the chief officers; it showed, however, a disposition to make concessions. Other suggestions were made by the most responsible officials of the United Mine Workers of America, showing a similar disposition. I was asked to ascertain whether the company would see a committee composed only of former employees, not including any representative from the United States, and not to be considered as a representation from the United Mine Workers. I was compelled to reply that my instructions would not permit of my intervening even to this extent, and did not approach the company on the point. Moreover, Mr. Duggan, the general manager, in a previous conversation had stated that no interview would be given to a committee of any kind and no proposition looking to settlement discussed. The manager would see any former employee up to the time of the strike, but only one at a time; not two, since that would constitute a committee. I told the United Mine Workers' officials what Mr. Duggan had said to me on this point, whereupon they insisted that the organization was prepared to carry on the fight indefinitely.

Record of the Provincial Workmen's Association.

I had several interviews also with Mr. John Moffatt, Grand Secretary of the Provincial Workmen's Association, who discussed with me his general conduct of the affairs of the organization. He admitted that he was opposed to strikes and usually did his utmost to prevent them. He denied, however, that he had not used always his utmost influence to secure improved conditions for the men. The records of the Provincial Workmen's Association on the subject of strikes are somewhat incomplete, but as far as the Grand Secretary was able to disclose them they appeared to bear out fully his statement that it had done its best to check strikes. In 26 years, Mr. Moffatt pointed out, there had been no strike in Cape Breton calling for financial assistance. In Pictou county he was aware of none. All the early strikes in Cumberland were fought out without financial aid, save a few hundred dollars to the worst-off families.

The men won in a nine week's strike at Springhill in 1890, when only $2,000 was expended. Some support was given to the Springhill strike in 1907. While it is true that these figures justify the claim that the Provincial Workmen's Association has not promoted or encouraged strikes, they have also been used to support the contention of the men that the organization was ineffective in its dealings with the company. Here the real test would lie in the relative value of the conditions of work secured in Canada without formal strikes and in the United States, where a more aggressive policy has been pursued. This is a large and complex question and the answer is usually influenced in a measure by the sympathies of the person queried. The laws enacted in relation to the coal mining industry in Nova Scotia, however, are admitted generally to be among the most advanced in the world, and these have been made in continual conference between the government of the province and the leaders of the Provincial Workmen's Association for a generation past.

Duration of Strike.

The duration of the strike is of course wholly conjectural. The United Mine Workers of America is said to be allowing relief at the present time at the rate of $2 for each man, $1 for a wife and 50 cents for each child. The officials of the United Mine Workers speak confidently of their ability to stand such a strain indefinitely, but this is obviously the language of exaggeration, and must at any rate depend largely on whether or not the Order is called on to support yet other strikes in other districts. At the present rate of growth in output the company will by the end of October, if not sooner, reach a point of production substantially equal to that usually attained during the winter months, or until the 'banking' is commenced in February. It is likely, therefore, that the majority of those now on strike will be surplus labour during most of the winter.

THE STRIKE AT INVERNESS.

The strike at Inverness was the second in point of date of commencement. This strike differs from the cases at Glace Bay and Springhill, because the dispute had not been referred to a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act, and is therefore an infringement of the terms of that Act. The circumstances under which this strike was called appear to be as follows: Work was being carried on under an agreement with Provincial Workmen's Association made in 1906, by which the company conceded what is usually known as the 'closed shop,' and agreed to employ underground only members of the organization, the company in return receiving assurances from the leaders of the union as to efforts that would be made by them in the mutual interests of the company and its employees. The company of course undertook to collect the dues.

The mine, which has been worked since 1900, is controlled by Mackenzie and Mann, and employs about 600 men. The manager is Mr. Malcolm Beaton, and there has been no strike previously in the history of the concern. The daily output is about 1,000 tons, though the average for June was 1,273 tons. The amount mined last year was 383,000 tons, and the number of days worked was 283.

The United Mine Workers of America came to Inverness from Sydney during the winter of 1908-9, though there had been rumours of its coming since the fall. Mr. Sutherland organized the lodge. When the local union was formed no request was made for recognition nor for the non-collection of Provincial Workmen's Association dues, but on May 18, a packet was thrown into the manager's office bearing the stamp of the Inverness Local Union United Mine Workers of America, and in effect requesting that Provincial Workmen's Association dues be not any longer collected from several hundred persons, whose names were appended. The document bore no signature, and the names in the list attached were all in one handwriting. The manager took no notice of the document beyond laying it by. One or two men came in subsequently and requested that the collection of Provincial Workmen's Association dues cease. They signed a written request to that effect and were then discharged. Five Belgians came in one day and signed the typewritten form which the manager had prepared, requesting the non-collection of Provincial Workmen's Association dues; these also were then discharged. The manager said he did not see how otherwise he could keep faith with the Provincial Workmen's Association. Had the Provincial Workmen's Association committee recommended the cancellation of the agreement he would have acted on the recommendation.

On July 8, Messrs. McCullough, Vice-President of the United Mine Workers of America, and Patterson, International Board member, came to Inverness. They are registered at the Imperial Hotel as from Bay City, Mich., and Fernie, B.C., respectively. They interviewed Manager Beaton, and told him they had 95 per cent of the men in the United Mine Workers, and yet Provincial Workmen's Association dues were being collected. This was illegal, they claimed. Mr. Beaton suggested a reference to the courts. McCullough and Patterson left him, remarking that they could not say, of course, whether or not there would be a strike, since that rested with the men themselves, but whatever happened he would have himself to thank for it.

That night there was a mass meeting of the United Mine Workers of America members, which McCullough and Patterson attended. They both spoke at length, then left the hall while the question of the strike was put. The men came out in the morning and McCullough and Patterson left town next day. The strike was called on July 9. The record of outputs from that day onward shows the gradual breaking down of the strike:—

July 1—Dominion Day, idle.
" 2—Idle.
" 3—Overstocked, idle.
" 4—Sunday.
" 5— 924 tons.
" 6—1140 "
" 7—1205 "
" 8—1217 "
" 9— 508 "
" 10— 399 "
" 11—Sunday.
" 12— 401 tons.
" 13— 464 "
" 14— 540 "
" 15— 583 "
" 16— 650 "
" 17— 513 " (pay day).
" 18—Sunday.
" 19— 808 tons.
" 20— 677 "
" 21— 766 "
" 22— 784 "
July 23— 835 tons.
" 24— 823 "
" 25—Sunday.
" 26— 802 tons.
" 27— 860 "
" 28— 859 "
" 29— 901 "
" 30— 923 "
" 31— 653 "
August 23— 983 "
" 24—1029 "
" 25—1002 "
" 26— 983 "
" 27— 944 "
" 28— 647 "
" 29—Sunday.
" 30— 870 tons.
" 31— 976 "
Sept. 1— 951 "
" 2— 911 "
" 3—1025 "
" 4— 566 "

It is apparent, therefore, that the effectiveness of the strike was shortlived. New men came in and were put on and many of the strikers quickly came back. The strikes originally numbered 418, including 180 Belgians, most of whom had been in the town but a year or two. At the beginning of September Mr. Beaton stated that the strikers had diminished to about 80 Belgians and 20 English-speaking men. Tom McLeod, who had been president of the United Mine Workers of America, had gone to work for the Dominion Coal Company at Glace Bay.

Some disturbance occurred the day after the strike, and the officials of the company asked for military protection. Mayor McLeod and two justices made requisition for the aid of the militia, and 100 soldiers and seven officers of the Royal Canadian Regiment were forwarded by special train, under command of Lt.-Col. Weatherbee. Manager Beaton said he had proposed to prosecute McCullough or Patterson, or both, for aiding and abetting a strike in defiance of the Industrial Disputes Investigation Act, and had consulted the solicitor of the company on this point, deciding finally, however, not to take this course for the present.

Jos. Moss, of Springhill, Vice-President of the District Union, was sent to Inverness to distribute relief, and while there made some attempt to settle the strike. He failed, however, and was succeeded by David Neilson, who was in charge at the time of my visit.

The Department of Labour had called the attention of the officials of the United Mine Workers of America to the situation at Inverness, asking whether or not the United Mine Workers of America organization was affording relief, at the same time pointing out the possible bearing on the dispute of the Industrial Disputes Investigation Act. The following reply was received:—

Glace Bay, C.B., July 31, 1909.

F. A. Acland, Esq.,
Deputy Minister of Labour,
Ottawa, Canada.

Dear Sir,—Referring to yours of July 28, asking for information regarding the suspension of work by certain of the employees of the collieries of Inverness, C.B., on or about July 9, I beg to say as follows:—

On April 28, 1909, a local of the United Mine Workers of America was organized in Inverness and out of the 618 men employed in and around the collieries 526 of that number joined our local, and the Inverness Coal and Railway Company insisted upon still continuing to collect $1.05 a quarter for dues and assessments in the Provincial Workmen's Association, which they had left and joined the United Mine Workers' Association.

Our Executive Committee, after some time, arranged for a meeting with the management, and they met at the office of the company in the town of Inverness, and the management informed them that as long as there were three men to meet him as a committee of the Provincial Workmen's Association that he would do business for all the men at the colliery. The manager also stated that the men would receive dues deducted for the Provincial Association, provided they sign their dismissal with the company. The work men, not feeling disposed to sign their discharge, decided to cease work until their back dues were forthcoming.

This is as near as I can possibly state the conditions at Inverness. The men notified the company by three different petitions that they protested against making any more stoppages for that association, namely, the P.W.A.

I wish to say that in my opinion, as district president, if the Labour Department knew the true situation as it exists in Cape Breton, the department would view this matter in a different light. I am also convinced that if Mr. King came to Cape Breton to see the true situation he would see one of the worst labour situations that ever existed in Canada.

I have the honour to be, sir,
Your obedient servant,

(Signed) DAN McDOUGALL,
President, District No. 26, U. M. W. of A.

F. A. ACLAND,
Deputy Minister of Labour,
Ottawa, Canada.

Mr. McDougall's letter does not give information as to the question of relief, but while at Inverness I met Mr. David Neilson, who is in charge of the strike there, and Mr. Neilson frankly stated that he was distributing relief and had 265 names on the list. I asked him if he did not think his action seemed contrary to the law, and he said he was under orders and knew nothing of what happened before the strike.

A special meeting of the council was called to meet me, and I was asked various questions concerning the operation of the Industrial Disputes Investigation Act. The members of the council were greatly perturbed over the cost of the troops, which they feared would have to be retained all winter, since the Belgians who now formed the chief factor in the strike were not likely to find work at the mine again, or other work elsewhere. In addition the council feared that the Belgians would themselves become public charges.

THE STRIKE AT SPRINGHILL.

There remains the strike at Springhill, the centre of operations of the Cumberland Railway and Coal Company. In this case, as in that of Glace Bay, the dispute had been the subject of inquiry before a Board of Conciliation and Investigation under the Industrial Disputes Investigation Act. There were several grievances referred, one being that of the recognition of the United Mine Workers of America, others relating to conditions of work. The Board was composed of Mr. Justice Longley, of Halifax, chairman; Mr. Chas. Archibald, Halifax, and Mr. E. B. Paul, M.P.P. The report of the Board was received in the Department of Labour on July 23, being signed by all the members, though a footnote from Mr. Paul modified his measure of agreement with the other members. The report was of an exhaustive nature, and went at some length into the question of working expenses of the property, reviewing also the proceedings of the four previous Boards of Conciliation and Investigation which had dealt with the differences between the management and the men.

On the question of recognition of the union, the Board took ground somewhat different from that of the Glace Bay Board, and held that the Board should not express any definite opinion on the point. After a careful review of the arguments advanced for and against recognition, the Board found on this point as follows:—

It is quite possible that recognition of the Local Union No. 469 U. M. W. by the C. R. & C. Company would at the present moment remove one unpleasant source of friction between the parties. It is, however, by no means clear

to your Board that any right exists on the part of the Department of Labour to enforce upon any company operating a mine or any other industrial enterprise a compulsion to give official recognition to any labour organization forced among its employees. Undoubtedly, under certain circumstances such a recognition results in convenience of various kinds in the transaction of the delicate relations which must always subsist between employer and employee in enterprises involving large numbers of the latter. From all the information which your Board has been able to obtain, however, it does not appear that such recognition is by any means a universal rule in such cases. Certain large employers of labour have refused and continue to refuse to recognize any labour organization and transact their business with individual employees or committee representing them.

'Section 26 of the Industrial Disputes Investigation Act provides 'that the Board's recommendation shall deal with each item of the dispute and shall state in plain terms, &c., what in the Board's opinion ought or ought not to be done by the respective parties concerned.'

In the present instance this Board does not feel under all the circumstances that it ought to definitely express an opinion that the company should recognize Local Union 469 of the U. M. W. It may or may not be desirable that the company should do this, but it seems to your Board that in view of the representations made it would be exceeding the just limits of its functions to express any definite opinion as to what the company ought to do in this regard. We think it ought to be left to the judgment and discretion of the company as to how far it will officially recognize an organization having its central authority outside the province, and largely under the control of interests that may be at some time in acute competition with the interests of the company.

Mr. Paul dissented and remarked:

'I think the recognition of Local Union No. 469 by the company would result in allaying friction and tend generally to a better understanding between the management and the employees. I think the employees should have the right to organize under any conditions and regulations which suit them best, so long as such organization contains no provisions and obligations which conflict with our laws, provincial or general.'

It is not desirable here to enter into the other questions discussed before the Board further than to draw attention to the general contention of the company that for several years past the mine has been conducted at a loss. A statement was submitted showing the extent to which wages had been increased since 1899, showing increases for 33 per cent in the case of unskilled labour to 70 per cent in the case of miners. It was submitted that while the average earnings of miners per day had increased from $1.83 in 1895 to $3.14 in 1907 the production of coal per miner per day had decreased from 5·52 tons in 1895 to 4·10 in 1907. The company claimed to have lost money during each of the last four years, totalling $299,690.19, and the Board pointed out that the accuracy of the figures submitted in this respect was not seriously questioned. It was also pointed out by the company that here had been 22 srikes during the last twenty years of operation. On the general subject of changes of conditions looking to increased earnings the Board found that it was 'unreasonable and impracticable that the employees should ask or expect higher rates of remuneration under existing conditions. The price of coal has fallen in large and important

contracts as compared with last year when a net loss resulted. The figures for five months of the present year indicate that the loss for 1909 is likely to be very much greater.' The report continued as follows:—

> Under these circumstances your Board cannot help recognizing that the only rational policy to be pursued by all parties concerned, is one of conciliation and forbearance in order that this large and important industry may not be compelled to cease operations, with most far-reaching and disastrous consequences to all, including the business men of the town. Heavy losses have been already entailed by twenty-two strikes which have exhausted the energies and wasted the resources of the company. In the judgment of the Board, the present is not a time to agitate for changes, but rather a time a common effort should be made to improve the situation and secure the permanence of the industry.

The Board took special note of the long standing friction between the company and its employees, as evidenced by the extraordinary number of strikes, and made the following remarks on this point:—

> Your Board saw tokens during the somewhat lengthy investigation of the matters in dispute that unpleasant feelings, if not distinct hostility, existed between a large number of employees and the management. It would perhaps be invidious to attempt to place the responsibility for this, but the Board feel it their duty to bring this state of affairs to the attention of the directors of the company in a formal manner by means of this report.
>
> This Board recommends the directors to make a careful investigation into this unpleasant feature of existing relations with the hope that they may be able to adopt such a policy or make such changes as will prevent the possibility of this unfortunate condition prevailing in the future

The Strike Called.

The men refused to accept the findings of the Board, and on August 9 called a strike, which came into effect next morning. The only formal notification received on the subject by the company was a telephone message from Mr. William Watkins, secretary of the union, to Mr. Stewart, manager of the mine, to the effect that the men would not be at work in the morning. The strike in this case was complete, not only the miners but the pumpmen, firemen and engine-drivers being called out, though about one hundred men are required to keep the mines free from water and in good condition as to ventilation, &c.

On August 13 and 14 the following messages were interchanged on the subjects between the Halifax *Herald* and Mr. T. L. Lewis:—

> To T. L. Lewis, President U.M.W.A.,
> Indianapolis, U.S.A.
>
> Halifax, August 13.—Our reports show that the U. M. W. at the Springhill struck without notice. Every man was called out, including pumpmen, foreman and repair men. This will cause the speedy destruction of the mines.
>
> Is this in accordance with the U. M. W. policy? If so, it is calculated to antagonize public opinion against your organization. Shall be glad for you to wire us for publication an authoritative statement of your policy, and

the position your executive will take in this extraordinary situation in Nova Scotia, which, we are told, is exactly opposite to your policy in the Unitied States.

The Halifax Herald.

President Lewis' Reply.

To the Halifax *Herald*, Canada:

Indianapolis, August 14.—Am not acquainted with the details of the strike at Springhill. It is against the policy and principles of the United Mine Workers to order out pumpmen, and such others as are necessary to protect property.

I have advised that pumpmen and others necessary to protect property return to work. This is our rule even where strikes may exist.

T. L. Lewis.

Notwithstanding this reply the pumpmen have remained out, and the protection of the mines has been undertaken by the officials, who are continuing the work at the present time.

Notice of Reduction of Wages for Miners.

On September 1 the company posted the following notice:—

NOTICE TO MINERS.

This company has shown to its employees that it has for the last three years been operating at a loss.

It must be apparent to the miners as it is to the directors that this cannot continue.

This company will not resume except at a reduction of fifteen (15) per cent on the rates paid to miners at the time the present strike commenced.

The rates paid other classes of labour will not be changed.

By order,

J. R. Cowans,
General Manager.

Springhill, N.S., Sept. 1, 1909.

Evidence of Strong Feeling.

I found evidence of strong feeling as between the management and the employees of this company. Leading spirits among the men manifest much feeling, not to say bitterness, toward the management, not only toward the person of the general manager, but to all subordinate officials; and since all these were drawn, with one exception, from the ranks of the men themselves, the presumption is at least favourable to the theory that any estrangement that exists is not due to one side alone. With such an influence as this dominanat among the men it would seem to be impossible for any manager or official to bring about a condition of good relations.

Concerning the company's condition that the mine was losing money year by year, the men admitted that an investigation of the figures submitted might show them to be correct on the face, but agreed that it was all a question as to how certain sums should be charged. Besides, they urged and this last very strenuously, the manager

and the officials knew nothing at all about mining, and if the mine was not paying it was the fault of the bad policy of the management. It is generally conceded that the mine is developed for 20 years ahead, whereas a year or two ahead is sufficient for the opeations of most companies, and it is possible that this policy of development may have some bearing on the financial question. I had understood that a serious cause of complaint on the men's part was their inability to get into personal touch with the management, though Mr. Cowans had assured me he was always ready to see the men, and did, as a matter of fact, see a great many of them. The men admitted they could get to Mr. Cowans without much difficulty, but urged that the latter nearly always upheld the rulings of the subordinate officials. The men claimed to have won each of the 23 strikes that have occured at the mines during the last 20 years, save that of 1907. They advanced the usual reasons for preferring the United Mine Workers to the Provincial Workmen's Association, they insisting, however, in reply to my question, that they were Canadian first and were never going to accept any condition which they believed to be injurious to Canada. The United Mine Workers, I was told, were prepared to maintain the fight at Springhill for years, if necessary.

On the question of this perpetual friction between management and men in this property I made many inquiries, saving in mind particularly the remarks of the Conciliation Board on this point, and the general view of those having a close knowledge of the situation was that without a new management and the weeding out of a number of objectionable spirits among the men at Springhill there could never be harmonious relations. One is forced, therefore, to the conclusion that there can be no speedy termination to the present struggle, and that it will be a long drawn-out contest unless some factor not now in evidence comes into play.

I have said nothing hitherto as to the effect of the strike on the town of Springhill. The place is a country town of six or seven thousand people wholly dependent on the coal mines. It offers a striking and most favourable contrast with the average coal mining town in the general character of the houses occupied by the miners and in the general appearance of comfort and neatness. I was assured that 80 per cent of the men own their own houses, while the company has about 200 houses occupied under rent. With regard to these rented houses, I found on inquiry that the company has not so far taken any steps looking to eviction, and has never disturbed the men in the course of previous strikes.

The men are receiving relief from the United Mine Workers of America; at least the local committee was issuing orders on the local merchants, and it was estimated that about $6,000 weekly was being spent.

The Industrial Disputes Investigation Act, 1907.

I heard much discussion of the Industrial Disputes Investigation Act while in the coal mining districts of Nova Scotia. While many had views as to amendments that would, in their opinion, strengthen the Act, there was a general concensus of approval of the principle of the measure. Before the present series of 'recognition' strikes set in, every coal mine in Nova Scotia save one is working under terms recommended by a Conciliation Board, or arranged while a Conciliation Board was being established for the purpose of investigation. The

solitary exception was the Inverness mine, where the agreement had existed from 1906, before the enactment of the Act, but where th manager shortly before the present strike started, had written the department for forms looking to the establishment of a board.

Since the enactment of the measure and prior to the present trouble there has been but one strike of importance in the coal mining industry in Nova Scotia, that, namely, of the mines at Springhill in 1907, and this, occurring after an inquiry before a board, was strictly legal. The only important strike, occurring in open infringement of the Act is that now in progress at Inverness, where, however, the trouble was largely the work of newly-arrived Belgians. There was a strike of a few day's duration at Springhill a week or two after the enactment of the Act in 1907, but the men returned to work immediately on learning that the new Act applied to their case.

Looking at the number of agreements affected in the coal mining industry under the Industrial Disputes Investigation Act, it is impossible not to feel that the men have in this Act a means of appealing to public opinion against unfair treatment, which is likely to prove far more effective than a strike. Three-fourths of the miners of Nova Scotia, even in face of the existing strikes and friction, are contentedly working under agreements thus affected.

All of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

F. A. ACLAND,

Deputy Minister of Labour.

REPORT

OF THE

COMMISSIONERS

OF THE

TRANSCONTINENTAL RAILWAY

FOR

FISCAL YEAR ENDING MARCH 31, 1909.

OTTAWA
PRINTED FOR C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1909.

[No. 37—1910].

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

OTTAWA, August, 1909.

The Honourable GEO. P. GRAHAM, P.C.,
Minister of Railways and Canals,
Ottawa.

SIR,—We have the honour to transmit through you to His Excellency the Governor General in Council our fifth annual report, being for the fiscal year ended March 31st, 1909, setting forth the receipts and expenditures in connection with the Eastern Division of the National Transcontinental Railway, and such other matters in relation to the said railway as appear to be of public interest.

Information in detail as to the progress of the work will be found in the report of the Chief Engineer and in the reports of the District Engineers hereto annexed.

The total expenditure for the fiscal year amounted to $24,892,772.98, making the total expenditure to March 31st, 1909, $51,950,717.02.

The total miles of grading done to the end of the fiscal year between Moncton and Winnipeg was 725.5.

The total miles of track laid 345.43.

The entire line, with the exception of the entrance into Winnipeg, is now under contract.

The total contracts for steel superstructures in bridges and viaducts awarded amount to 23,765 tons, of which 7,594 tons have been practically completed.

Contracts for 174,818.2 gross tons of 80 lb. steel rails have been awarded to March 31st, 1909, 105,695.2 gross tons to the Dominion Iron & Steel Company, and 69,123 gross tons to the Algoma Steel Company.

Contracts for the necessary steel rail fastenings for these rails have also been placed with Canadian manufacturers.

The following contracts, after having been duly advertised, and sanctioned by the Governor-in-Council, as required by the National Transcontinental Railway Act, have been awarded in each case to the lowest tenderers, as follows, viz.:—

MACDONELL & O'BRIEN. Construction of section, District "C": from a point designated on the plans of the Commissioners at or near Weymontachene, P.Q., 196.38 miles west of the north abutment of the Quebec bridge westerly for a distance of about 107 miles.

MACDONELL & O'BRIEN. Construction of section, District "C": from a point designated on the plans of the Commissioners at about 107 miles west of Weymontachene, P.Q., westerly to the end of the G.T.P. Company's contract, a distance of about 114.97 miles.

O'BRIEN & MCDOUGALL BROS. Construction of section, about 126 miles, Districts "E" and "F": from a point designated on the plans of the Commissioners at the western end of Fauquier Bros' contract north of Lake Nepigon, District "E," westerly to a point at or near Dog Lake, District "F."

O'BRIEN & MCDOUGALL BROS. Construction of section, about 24.13 miles, District "F": from a point at or near Dog Lake to Peninsula Crossing.

M. P. & J. T. DAVIS. Construction of section, Districts "D" and "E": from a point designated on the plans of the Commissioners, being from the western end of Fauquier Bros' Abitibi contract, in a westerly direction for a distance of about 104.24 miles.

M. P. & J. T. DAVIS. Construction of section, District "E": from a point designated on the plans of the Commissioners, being about sixty miles west of the

easterly boundary of District "E," westerly to the end of Fauquier Bros' contract north of Lake Nepigon, for a distance of about 100 miles.

STEEL BRIDGES.

District "A."

Dominion Bridge Company for steel superstructure for bridges over rivers Little Salmon, Quisibis, Iroquois, Madawaska. Prices:—

Little Salmon river, steel 4.68c. per lb., timber $46.00 per M., b.m.
Quisibis river, steel 4.39c. per lb., timber $47.00 per M., b.m.
Iroquois river, steel 4.39c. per lb., timber $47.00 per M., b.m.
Madawaska river, steel 4.39c. per lb., timber $47.00 per M., b.m.

District "A."

Canada Foundry Company, Limited, for steel superstructures for bridges over Canaan river and Salmon river. Prices: steel 4.50c. and 4.65c. per lb. respectively; timber $47.00 per M., b.m.

Wm. P. McNeil & Company, for steel superstructures for bridges over Four Mile brook, Grande river, Sigas river, Green river and Baker brook. Prices: steel 4.34c. per lb., 3.94c. per lb., 3.89c. per lb., 4.07c. per lb., and 3.89c. per lb., respectively. For timber, Four Mile brook $40.00 per M., b.m.; for other structures $42.00 per M., b.m.

Structural Steel Company, Montreal, for steel superstructures for bridges over Newcastle stream and Little river at mile 67 and 192 west of Moncton respectively. Prices: steel 3.95c. per lb.; timber, etc., $37.00 per M., b.m.

Dominion Bridge Company, District "A." Overcrossing on highway and overcrossing of Ferry Road at mile 8.5 and 230.3 west of Moncton respectively. Prices: steel 4.375c. per lb. and 4.625c. per lb., respectively; timber and floor system $47.00 per M., b.m.

Canada Foundry Company, Limited, for seven steel railway bridges, as follows:

District "A."

Tobique river: steel 4.38c. per lb.; timber, etc., $46.00 per M., b.m.

District "F."

Edyth creek, 1st crossing: steel 5.07c. per lb., timber, etc., $48.00 per M., b.m.
Edyth creek, 2nd crossing: steel 5.07c. per lb., timber, etc., $48.00 per M., b.m.
Creek crossing, mile 108 west of Superior Junction: steel 4.9c. per lb., timber, etc., $48.00 per M., b.m.
Creek crossing, mile 118.25 west of Superior Junction: steel 4.9c. per lb., timber, etc., $48.00 per M., b.m.
Creek crossing, mile 158.75 west of Superior Junction: steel 4.9c. per lb., timber, etc., $48.00 per M., b.m.
Macfarlane river, mile 130 west of Superior Junction: steel 4.7c. per lb., timber, etc., $48.00 per M., b.m.

District "B."

Dominion Bridge Company, Limited. Steel superstructure for Vermillion river bridge, at mile 145, west of the Quebec bridge. Prices: steel 4.22c. per lb., timber and floor system $48.00 per M., b.m.

District "F."

Locomotive shops east of Winnipeg. Messrs. Haney, Quinlan & Robertson. Price: lump sum of $869,000.00, with schedule of prices for additions and deductions.

STEEL RAILS.

The Algoma Steel Company, Limited. 15,752 gross tons, 80 lb. steel rails as follows:—

6,871 gross tons, f.o.b. cars at the junction point with the T. & N. O. Railway at $38.50 per gross ton.

6,870 gross tons, f.o.b. cars at the junction point with the T. & N. O. Railway, at $38.50 per gross ton.

2,011 gross tons, piled on dock at West Fort William, at $33.50 per gross ton.

The Dominion Iron & Steel Company, Limited. 28,695 gross tons, 80 lb. steel rails, as follows:—

2,282 gross tons, f.o.b. cars on Transcontinental Railway siding at Chipman, N.B., at $35.95 per gross ton.

4,224 gross tons, f.o.b. cars on Transcontinental Railway siding near crossing of the I.C.R., in the County of York, N.B., at $35.22 per gross ton.

4,023 gross tons, f.o.b. cars same crossing as above at $35.22 per gross ton.

4,651.5 gross tons, f.o.b. cars, same crossing as above at $35.22 per gross ton.

1,006 gross tons, f.o.b. cars on Transcontinental Railway siding near Plaster Rock, N.B., at $35.95 per gross ton.

848.5 gross tons, f.o.b. cars on Transcontinental Railway siding at Grand Falls, N.B., at $35.95 per gross ton.

2,376 gross tons, f.o.b. cars on Transcontinental Railway siding at Grand Falls, N.B., at $35.95 per gross ton.

8,196.5 gross tons, f.o.b. cars on Transcontinental Railway siding at junction with the Quebec Central Railway, near St. Anselme, P.Q., at $34.40 per gross ton.

RAIL FASTENINGS.

The Nova Scotia Steel & Coal Co., Ltd. 34,520 steel tie plates; total weight 166,400 lbs., at $2.12½ per 100 lbs., f.o.b. cars at Moncton, N.B.

The Montreal Rolling Mills Company. 74,800 steel tie plates; total weight 360,800 lbs., at $2.22½ per 100 lbs., f.o.b. cars Grand Falls, N.B.

The Hamilton Steel & Iron Co., Ltd. 4,251,090 lbs. steel tie plates to specifications, as follows:—

1,011,150 lbs. free on dock Levis, at $1.74 per 100 lbs.

1,566,800 lbs. free on dock Quebec, at $1.74 per 100 lbs.

172,200 lbs. f.o.b. cars North Bay, at $1.90 per 100 lbs.

1,500,940 lbs. free on dock Fort William or West Fort William, at $1.82½ per 100 lbs.

The Nova Scotia Steel & Coal Co., Ltd. 969.5 gross tons steel splice bars, at $48.16 per gross ton, delivered as follows:—

225 gross tons f.o.b. cars Transcontinental Railway siding near crossing of the I.C.R., in the County of York, N.B.

214 gross tons f.o.b. cars same point as above.

247 gross tons f.o.b. cars same point as above.

53.5 gross tons f.o.b. cars on Transcontinental Railway siding near Plaster Rock, N.B.

45 gross tons f.o.b. cars on Transcontinental Railway siding at Grand Falls, N.B.

58 gross tons same point as above.

126.5 gross tons f.o.b. same point as above.

The Hamilton Steel & Iron Co., Ltd. 838 gross tons steel splice bars, as follows:—

731 gross tons f.o.b. cars on Transcontinental Railway siding at junction with the T. & N. O. Railway at $48.83 per gross ton.

107 gross tons piled free on dock West Fort William at $47.71 per gross ton.

The Montreal Rolling Mills Company. 558 gross tons steel splice bars at $47.04 per gross ton, delivered as follows:—

122 gross tons f.o.b. cars Chipman, N.B.

436 gross tons f.o.b. cars at junction with the Quebec Central Railway near St. Anselme, P.Q.

The Peck Rolling Mills Co., Ltd. 190.5 tons steel track spikes, as follows:—

26.5 tons f.o.b. cars on Transcontinental Railway siding near Plaster Rock, N.B., at $2.48½ per 100 lbs.

22 tons f.o.b. cars on Transcontinental Railway siding at Grand Falls, N.B., at $2.48½ per 100 lbs.

28.5 tons f.o.b. cars at same point and price as above.

61.5 tons f.o.b. cars at same point and price as above.

52 tons piled on dock at West Fort William at $2.40 per 100 lbs.

The Nova Scotia Steel & Coal Co., Ltd. 335 tons steel track spikes at $2.43 per 100 lbs., delivered as follows:—

109.5 tons f.o.b. cars on Transcontinental Railway siding near I.C.R. crossing, County of York, N.B.

104.5 tons f.o.b. cars same point as above.

121 tons f.o.b. cars same point as above.

The Hamilton Steel & Iron Co., Ltd. 356.5 tons steel track spikes at $2.58 per 100 lbs., delivered as follows:—

178.5 tons f.o.b. cars on Transcontinental Railway siding at junction with the T. & N. O. Railway.

178 tons f.o.b. cars same point as above.

The Montreal Rolling Mills Company. 272.5 tons steel track spikes, as follows:

59.5 tons, f.o.b. cars at Chipman, N.B., at $2.50 per 100 lbs.

213 tons, f.o.b. cars at junction with the Quebec Central Railway near St. Anselme, P.Q., at $2.40 per 100 lbs.

The Toronto Bolt & Forging Co. 211 tons track bolts, as follows:—

16.5 tons, f.o.b. cars on Transcontinental Railway siding at Chipman, N.B., at $3.15 per 100 lbs.

30.5 tons, f.o.b. cars on Transcontinental Railway siding near the crossing of the I.C.R., County of York, N.B., at $3.15 per 100 lbs.

29 tons, f.o.b. cars at same point and price as above.

33.5 tons, f.o.b. cars at same point and price as above.

7.5 tons, f.o.b. cars on Transcontinental Railway siding near Plaster Rock, N.B., at $3.15 per 100 lbs.

6 tons, f.o.b. cars on Transcontinental Railway siding at Grand Falls, N.B., at $3.15 per 100 lbs.

8 tons, f.o.b. cars at same point and price as above.

17 tons, f.o.b. cars at same point and price as above.

49 tons, f.o.b. cars at T. & N. O. Railway junction at $3.10 per 100 lbs.

14 tons, free on dock at West Fort William at $3.05 per 100 lbs.

The Montreal Rolling Mills Company. 59 tons track bolts and nuts, f.o.b. cars at junction with the Quebec Central Railway near St. Anselme, P.Q., at $3.15 per 100 lbs.

RAILWAY TIES.

On the recommendation of our Chief Engineer, and after approval by the Governor-in-Council, contracts for railway ties were entered into as follows, viz.:—

The Eastern Construction Co., Ltd. 38,926 1st class and 21,463 2nd class railway ties, delivered as follows:—

15,070 1st class and 9,211 2nd class ties between Stations 0 and 2524, District "F";

23,856 1st class and 12,252 2nd class ties between mile 75½ and 75.8, District "F": all at a flat rate of 52½c. per tie.

Mr. John G. Hearn. 105,000 railway ties at 57c. per tie for 1st class, and 44c. per tie for 2nd class, the latter not to exceed 20% of the whole—65,000 to be delivered near Belair and St. Basile stations, on the C.P.R., and along the right-of-way between St. Basile and the Charest river in such numbers as to allow track laying from Belair or St. Basile easterly to the Quebec bridge; 40,000 to be delivered on the right-of-way between Charest river and La Tuque, P.Q. These ties were all required at the points named, and the prices were considered as most satisfactory.

The contracts for the mill and shop inspection of the material and workmanship for bridges have been awarded to the Canadian Inspection Company, Montreal, for the price of 45c. per ton of 2,000 lbs. This Company has also been awarded contracts for the inspection of the steel rail fastenings for the price of 20c. per ton.

The contracts for the inspection of the steel rails have been awarded to the Standard Inspection Bureau, Limited, Toronto, for the price of 5c. per ton.

Attention is directed to the statements annexed to this report showing the details of the expenditure during the fiscal year and since the commencement of the work.

The whole respectfully submitted.

C. F. McISAAC,
C. A. YOUNG,
S. N. PARENT,
Chairman.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY, CHIEF ENGINEER'S OFFICE.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY, OTTAWA, ONT.

SIRS:—I beg to submit the following report on the progress of the work under my charge from the 31st of March, 1908, to the 31st of March, 1909.

The entire line, with the exception of the entrance into Winnipeg, is now under contract, and a contract for the construction of a bridge over the Red river, and the entrance into Winnipeg will probably be awarded in April.

A contract for the erection of locomotive and other shops at a point about five and one-half miles east of Winnipeg was awarded to Messrs. Haney, Quinlan and Robertson on the 23rd of March, 1909, and will be proceeded with during the coming season.

Considerable progress has been made with the construction, especially between Moncton and Weymontachene, and between Lake Superior Junction and Winnipeg, and it is expected that the last mentioned section will be in operation before next winter.

In order to simplify reference to general contracts, the following table is attached, showing district, number of contract, name of contractor, approximate through mileage covered by contract, and its length in miles:—

Contract No.	Contractor	Mileage		
		From	to	Length
Dist. "A"—				
1	Grand Trunk Pacific Ry. Co.	0.00	50.00	50.00
2	Jno. W. McManus & Co.	50.00	58.00	8.00
3	Grand Trunk Pacific Ry. Co.	58.00	96.42	38.42
4	Grand Trunk Pacific Ry. Co.	96.42	163.80	67.38
5	Willard Kitchen Co.	163.80	195.58	31.78
6	Lyons & White	195.58	256.61	61.03
Dist. "B"—				
7	M. P. & J. T. Davis	256.61	310.22	53.61
8	M. P. & J. T. Davis	310.22	460.45	149.12
	(Quebec Bridge)			1.11
9	M. P. & J. T. Davis	460.45	510.31	49.86
10	Macdonell & O'Brien	510.31	610.41	100.10
11	Grand Trunk Pacific Ry. Co.	610.41	656.83	46.42
12	Macdonell & O'Brien	656.83	763.88	107.00
Dist. "C"—				
13	Macdonell & O'Brien	763.88	878.80	114.97
14	Grand Trunk Pacific Ry. Co.	878.80	925.12	46.32
Dist. "D"—				
14	Grand Trunk Pacific Ry. Co.	925.12	1028.80	103.68
15	E. F. & G. E. Fauquier	1028.80	1128.77	99.97
16	M. P. & J. T. Davis	1128.77	1172.85	44.08
Dist. "E"—				
16	M. P. & J. T. Davis	1172.85	1232.85	60.00
17	M. P. & J. T. Davis	1232.85	1332.85	100.00
18	E. F. & G. E. Fauquier	1332.85	1407.85	75.00
19	O'Brien, Fowler & McDougall	1407.85	1428.04	20.19
Dist. "F"—				
19	O'Brien, Fowler & McDougall	1428.04	1534.04	106.00
20	O'Brien, Fowler & McDougall			
20a	O'Brien, Fowler & McDougall	1534.04	1557.80	12.26
	(G.T.P. Subs.)			11.50
21	J. D. McArthur Co.	1557.80	1804.47	246.67

NOTE.—Contract 12 transferred from District "C" to District "B"

District "A."

The location of about 42¾ miles was revised during the summer months and a saving of about $200,000.00 in construction effected thereby. The progress made by the general contractors in this district has been satisfactory, with the exception of contract No. 2, where greater progress should have been made.

Contracts were awarded during the year for the steel superstructures required at the following mileages and places:—

Mile.	
8.5	Overcrossing highway.
21.7	Canaan river.
57.	Salmon River Chipman.
67.	Newcastle stream.
165.2	Tobique river.
184.71	Little Salmon river.
192.	Little river.
197.6	Four Mile brook.
207.8	Grand river.
209.8	Sigas river.
213.8	Quisibis river.
220.9	Green river.
228.8	Iroquois river.
230.2	Madawaska river.
230.3	Overcrossing ferry road.
243.8	Baker brook.

None of these have as yet been erected.

The total approximate distance graded in this district up to the end of the fiscal year was 170 miles.

Track laid in main line up to the end of year	35.41 miles
Track laid in spurs and sidings	11.44 "
Total track laid up to end of year	46.85 "

District "B."

Progress made under the general contracts in this District has been satisfactory; the average number of men and horses employed during the year was 5,952 men and 1,075 horses; also 31 locomotives and 11 steam shovels.

Good progress has also been made in the erection of steel superstructures for the various bridges, those at the following points being about completed:—

Mileage west of Quebec Bridge.

2.6	Cap Rouge viaduct.
50.7	Charest river.
65.3	Batiscan river.
70.8	Undercrossing highway.
83.	Tawachiche river.
85.	Roberge creek.
95.	River des Eaux Mortes.
128.6	St. Maurice river.
128.9	River au Lait.

A contract was awarded for the steel superstructure for the bridge over the Vermillion river at mile 145 west of the Quebec bridge, on January 30th, 1909, to the Dominion Bridge Company.

Total mileage of grading done in this District up to the end of the year is about 267.25 miles.

Total mileage of main line track laid east of the Quebec bridge	13 miles
Total mileage of main line track laid west of the Quebec bridge	109.2 "
Track laid in spurs and sidings	13.5 "
Total track laid to end of year	135.7 "

The easterly 107 miles of District "C," owing to its being more accessible from the east than from the west has been transferred to District "B," and a contract (12) for the construction of this portion was awarded to Messrs. Macdonell & O'Brien on the 19th of September, 1908, but as yet little work has been done on it.

District "C."

Location and revision surveys were continued by two parties in this District during the summer months, but they were disbanded before the end of the year. Two parties were also engaged in taking soundings and making cross sections of the various stream crossings. In January, 1909, a party was sent in north of Grand Lake Victoria to try alternative lines between the Atik and Megiskan rivers, but have not as yet completed their work.

The easterly 107 miles of this District has been transferred to District "B" as before mentioned, and westerly from the new boundary between Districts "B" and "C," a contract (No. 13) for the construction of 115 miles was awarded to Messrs. Macdonell & O'Brien on the 19th of September, 1908. This 115 mile contract extends to the easterly end of the contract (14) in Districts "C" and "D" awarded to the Grand Trunk Pacific Railway Company, on March 14th, 1907, but no work has been done on either of these contracts, except about 150 acres of clearing on contract No. 14.

District "D."

Mr. A. G. Macfarlane, formerly Assistant District Engineer in District "F," was appointed District Engineer of District "D" early in October, relieving Mr. John Aylen, who had been acting District Engineer for a year. Mr. Aylen subsequently resigned and has been replaced as Assistant District Engineer by Mr. A. H. Willet, formerly of District "F."

The revision of final location was completed by two parties during the summer months, and a third party was also employed taking borings and making cross sections of the various stream crossings as far west as mile 193.

The progress made with the construction on the 103 miles which was awarded to the G.T.P. in March, 1907 (Contract No. 14), has not been satisfactory, and, for some time past, I have been endeavouring to have that Company put on additional men and plant to push the work, and they have now made arrangements to that end.

The progress of the work from the 103rd to the 203rd mile, a contract (No. 15) for which was awarded to Messrs. E. F. & G. E. Fauquier on the 25th of March, 1908, has been satisfactory.

On October 29th, 1908, a contract (No. 16) for 44 miles at the westerly end of this District was awarded to Messrs. M. P. & J. T. Davis, this contract also extending into District "E" for 60 miles, but as yet no work has been done on this contract.

A contract was also entered into on the 12th of March, 1909, with Messrs. O'Boyle Bros., of Sault Ste. Marie, for the erection of District Engineer's Offices at Cochrane, at a cost of $7,351.85.

Average number of men and horses per month employed in this District was 641 men and 60 horses.

Total grading done in this District to end of year was, say, 24.3 miles.

District "E."

Some revisions of final location have been made in this District during the past summer with very satisfactory results, reducing the grades, curvature and quantities to a considerable extent.

On the 28th of March, a contract (No. 18) for the construction of 75 miles was awarded to Messrs. E. F. & G. E. Fauquier, but owing to the distance the work is from regular means of communication, the contractors were only able to commence clearing the right of way in August and the actual grading in October, but they have constructed a tramway 18 miles in length, connecting Helen lake with Lake Nepigon, and before the close of navigation had a considerable tonnage of supplies forwarded to the vicinity of the line, and will be in a position to push the work when the spring opens.

On the 19th of September last, a contract (No. 19) was awarded to Messrs. O'Brien, Fowler & McDougall Bros., covering the westerly 20 miles of this District. No work has yet been done on this contract.

On October 29th last, contracts (Nos. 16 and 17) covering the easterly 160 miles of this District were awarded to Messrs. M. P. & J. T. Davis, but no work has been done on them.

The average number of men and horses employed per month on this District (Contract 18) was 135 men and 13 horses.

Total grading done to date on this District, 6 miles.

District "F."

This District may be divided into two sections, the one east and the other west of what has heretofore been known as "Lake Superior Junction," this point being about half a mile from Pelican Falls on English river.

On the easterly portion the revision of final location surveys was completed during the summer, and, on the 19th of September, 1908, contracts (Nos. 19 and 20) were awarded to Messrs. O'Brien, Fowler & McDougall Bros., No. 19 covering about 106 miles from the easterly boundary of the District to near Dog lake, and No. 20 covering about 23.76 miles from near Dog lake to what was formerly known as "Lake Superior Junction" near Pelican Falls.

In this last mentioned contract there are included 11.13 miles from near Pelican Falls easterly, on which work has been done by the Grand Trunk Pacific Railway Company, and which they are to complete as subcontractors of Messrs. O'Brien, Fowler & McDougall Bros. The track on the main line for this last mentioned distance is now laid, but not yet ballasted. This will move the junction point of the Lake Superior branch of the G.T.P., 11.13 miles easterly from where first contemplated near Pelican Falls, but will only adversely affect the through mileage by 37/100 of a mile over the northerly route.

Satisfactory progress has been made with the construction easterly from the new Lake Superior Junction (through mileage 1546.67) on contracts Nos. 19 and 20.

On the western section the progress made with the construction has been satisfactory, the heavy rock cuttings being about finished. There still remain a number of embankments to be completed by the use of temporary trestle and train fill, but the progress on these during the last three months has been such that no delay to track laying should result, and it is expected that the entire main line track will be laid in this section before the end of September next.

The following steel superstructures have been completed and construction trains are now running over them:

Mile	181.6	C.P.R. Over-crossing.
	194.5	Whitemouth river.
	209.4	Brokenhead river (East).
	216.0	Brokenhead river (West).

Contracts have also been awarded for the steel superstructures required at the following points:—

Mile	33	Edith creek.
	33.4	Edith creek.
	76	Wabigoon river.
	108	Creek.
	118.25	Creek.
	130	Macfarlane river.
	135	Winnipeg river.
	158.75	Creek.

Track has been laid on our main line from our junction with the Dundee branch of the Canadian Northern Railway in St. Boniface easterly for 112¼ miles, and 37 miles of track have been laid in sidings and spurs. There are about 13.63 miles of main line track laid near Lake Superior Junction, including the 11.13 miles on the portion constructed by the G.T.P., making the total main line track laid in this District to date 125.88 miles, and about 37 miles of sidings.

Total mileage graded, 258 miles.

The average number of men and horses employed per month was 4,514 men and 831 horses.

CLASSIFICATION AND ARBITRATION.

As mentioned in my report for the fiscal year ending March 31st, 1908, objections were made by the Grand Trunk Pacific Railway Company in regard to classification allowed by us on various sections in Districts "B" and "F," and on the 2nd of April, 1908, I asked Mr. Woods, Assistant Chief Engineer of that Company, to indicate at what stations our classification was objected to, and received a reply from him dated the 21st of April, taking exception to the classification at a number of points in District "F," and subsequently some definite points in District "B," and enclosing a list of stations where objections were made. On the 24th of April, I asked the Assistant Chief Engineer of the G.T.P. to name a date for a conference to appoint a third arbitrator, and received a reply on the 28th, in which he asked that I should first go over some of the points on the ground. On the 11th of May, I again wrote Mr. Woods, expressing the opinion that our going over the ground without a third arbitrator would be lost time, in face of the statements made by our resident engineers on the work, and received a reply from him dated the 18th of May. On the 21st of May, I wrote Mr. Woods reiterating my statements re a third arbitrator, but consented to first visiting a few points in dispute. In accordance with this, we left on the 30th of May for District "F." We reached there on the 31st and spent five days on the work in that District, and from the 29th of June to the 3rd of July, we spent going over numerous points east of the Quebec bridge. On the 22nd of July, I again wrote Mr. Woods in regard to both Districts "B" and "F," stating that, as my engineers on the ground had actual measurements of the material and could produce them, I could not agree with him, and suggested the names of three parties as third arbitrator. On the 29th of July, I asked him to expedite the appointment of a third arbitrator. On the 18th of August, I wrote Mr. Woods reminding him of my letters of July 22nd and 29th on the same subject, and on the 12th of September, I wired him again on the same subject, and spoke to him regarding the same on the 5th of October. On the 8th of October, I wrote to you in regard to the matter of arbitration, and also Mr. Woods on the 14th of that month. Nothing definite was received from the Grand Trunk Pacific, until a letter dated the 16th of November, from Mr. B. B. Kelliher, Chief Engineer of that Company, suggesting Mr. Collingwood Schreiber, General Consulting Engineer to the Government, as third arbitrator. I wrote Mr. Schreiber on the 20th of November, asking him if he would act, and he replied on the 21st

stating that, not being aware of the extent or nature of the questions in dispute, he was unable to answer as to whether or not he could find the time to assume the position of third arbitrator, and further in any case, he could only accept duties or office such as he was requested to do by the Prime Minister. Since that date, however, I have verbally communicated with Mr. Schreiber, and he is prepared to accept the appointment with the consent of the Prime Minister, providing it will not interfere with his duties as Engineer of the Western Division of the Grand Trunk Pacific Railway, and that it can be carried on prior to a date not later than the 15th of May next. He agrees with me that it would be a farce to go on with the work now when the snow is on the ground, but as soon as it disappears, say April 1st, he will be prepared to proceed, and I am now endeavouring to arrange with Mr. Kelliher, that as soon as the snow goes, he, Mr. Schreiber and myself shall proceed to arbitrate these matters on the ground.

AGRICULTURAL LANDS.

I may state that from time to time, I have received reports from district and other engineers in regard to the nature of the country and timber along our line in Western Quebec and North-eastern Ontario. I have had these summarized, and a map explanatory of same prepared, which I attach.

The land fit for cultivation in District "C" commences at a point about four miles east of the Bell river, and extends westerly to the Ontario boundary. The extent of this land north and south is shown on the accompanying map. Most of this land will be fit for cultivation, being a good clay soil easily drained. No doubt this arable land extends much further north than shown on the map, but we only report on the country as far as explored by our engineers. On this tract, as shown on the map of District "C," there are about 5,800 square miles, or 3,712,000 acres, and of this amount it is said 2,500,000 acres will make good farming land, and most of the rest can probably be drained afterwards.

The timber from the Bell river to the Hurricanaw river is principally spruce, balsam and jack pine, running from six to eighteen inches in diameter. From the Hurricanaw to the Ontario boundary, it is second growth, principally of balsam, birch and spruce, though there is some good spruce on the southern part of the tract as marked.

On the Hurricanaw there is good navigable water for steamboats sixty or seventy miles in a southerly direction towards the height of land.

All the country is well watered, and interspersed with fine lakes and rivers.

District "D."

In District "D," commencing at the Ontario boundary, or the 114th mile on the attached map, to the 185th mile, there are about 2,100 square miles, or 1,344,000 acres of land. The percentage of arable land fit for cultivation upon clearing may go up to sixty per cent., although there are long swamps near the line between the 155th and 175th miles, but these can easily be drained, as they are not deep.

Timber is small, except in the valleys.

From the 185th to the 285th mile, there is an immense tract equal to any agricultural land in Canada, being a succession of long ridges, interspersed with swamps, which can be easily drained. The country is well watered and has an abundance of water power.

There are 7,500 square miles, 6,000 of which, or 3,800,000 acres, can be considered good arable land.

The timber is small, consisting of spruce, balsam or white birch, except on the southern end of Ground Hog river, where there is some white and red pine. From the 285th to the 325th mile, the soil is of a more sandy nature, though the valley of

the Missinabie river contains some excellent land. The area would be about 2,000 square miles, containing probably about 500,000 acres of good arable land, 300,000 acres of medium quality, and the balance of pasture and rocky land well wooded. The GREEN tinted area south of the 107th mile to the 190th mile is also good land, but would require more drainage. The country here is very flat, covered with moss swamps, with low clay ridges, but all with good substratum of clay. According to reports, this clay belt extends much further north than shown on the map, but the area shown has been put in from personal observation and reports of the engineers.

District "E."

From the 325th mile to the 355th mile, there is a good wide range of agricultural land, which would make an area of about 2,000 square miles, or 1,000,000 acres. This is good sandy loam, well watered and timbered with small spruce, birch and balsam.

From the 355th mile west to mile 475, the area of arable land is much more restricted as far as our reports go, being confined more to the valleys of large rivers. There are probably 1,000 square miles, or 600,000 acres in this tract. West of the 470th mile, there is very little land fit for cultivation.

The following is a weather report on Districts "C" and "D," from May 1st to September 30th, 1907, giving dates of frost.

Caches	May	June, July and August	September
Bell River	Light frost to 19th	None	None
N.E. Abitibi 109th mile	Light frost to 20th	None	None
N.W. Abitibi 139th mile	Light frost to 20th	None	None
Abitibi River 184th mile	Ther. reg. 30° and 32° to 20th.	None	White frost Sep. 1st then none till 24th.
McDougall's Chutes	None	None	None
Mettagama River 239th mile	Ther reg. 31° on 7th, 8th and 26th.	None	Ther. reg. 32° 1st, 15th and 30th
Kapuskasing River	No record.	None	Ther. reg. 31° on 14th, 23rd and 24th
Opazatica, 237th mile	Light frost to 19th	None	First frost on 14th
Missanabie	Light frost to 19th	None	First frost on 28th

BUSH FIRES.

I am pleased to state that during the past season no bush fires were reported as having been caused by any of our contractors.

MILEAGE.

The through mileage from Moncton to Winnipeg is 1804.84 miles. Total grading done to date between Moncton and Winnipeg 725.5 miles.

TOTAL MILEAGE OF TRACK LAID.

District	Main Line	Sidings, Spurs, &c.	Total Track laid
"A"	35.41	11.44	46.85
"B"	122.2	13.5	135.7
"F"	125.88	37.	162.88
Totals	283.49	61.94	345.43

Total contracts for steel superstructures in bridges awarded to date amount to 23,765 tons; of this amount 7,594 tons have been practically completed.

CASUALTIES.

No accidents of a serious nature have occurred to the engineering staff, but there have been a considerable number among men employed by the contractors, a large proportion of which were due to the use of explosives.

The following is a statement compiled from reports received by me, giving the District in which the accidents occurred, the date, cause, and, as far as practicable, the names of killed or injured.

Date	Killed	Injured	Cause
District "A"—			
Aug. 1st 1908	Accettela, Noc.		Crushed by car.
Aug. 31st "	Delessio, A.		Explosion.
Sep. 25th "		Higgans Delaney Wheaton	Explosion.
Oct. 21st "		Foreman, St. 1513.	Explosion.
Dec. 3rd "	Drost, Sam.		Run over by car.
Dec. 7th "	Angelo, O.	Plagadio, A.	Explosion.
Dec. 14th "		Brooks McGammon	Derailment.
Feb. 5th 1909	Italian.		Explosion.
	Bron, A.		
Feb. 5th "	Pafscifki, A.		
Feb. 18th "	Tarabar, C.		
Feb. 22nd "		Delincio, S.	Fell from trestle.
Mar. 12th "	Gemmeker		Explosion.
Mar. 16th "	(Unknown)		Explosion.
District "B"—			
July 23rd 1908	Heurvitt, Jos.		Crushed by car.
Oct. 10th "	Houmelli, Jo.		Explosion.
Oct. 10th "	Frank, P.		Struck by stone.
Oct. 12th "	Nicola, C.		Explosion.
Mar. 11th 1909	O. Hollander A. Ingerson F. Nylander G. Lind E. Eng		Engaged putting in "Coyote" in face of sand cut, cave in burying them.
Mar. 12th "	Pennee, C.		Struck frozen sand.
Mar. 23rd "	Viola, P.		Struck by rock.

Date	Killed	Injured	Cause
District "E"—			
Feb. 14th 1909	Munson, Nels.		
	Lundquist, K.		
	Nelson, K.		
	Gustafson, A.		Explosion.
	Lundgren, O.		
	Anderson, M.		
	Syblom, O.		
Mar. 11th "	Cook, Raymond		Crushed by rock.
District "F"—			
Apr. 1st 1908	Coolly, W.	Fanachre, D.	Explosion.
Apr. 2nd "	Consander, J. P.		Struck by stone.
Apr. 3rd "	Shigaski, Jos.		
Apr. 6th "	Peters, H. M.		
Apr. 7th "	Marson, Alex		
Apr. 9th "	Prinoi, R.		
Apr. 20th "	Haraysm, E.		
Apr. 21st "		Waddell, F.	Explosion.
		Sjorgum, S.	
May 12th "		Cortta, Thos.	
May 14th "		Blmfenin, J.	
		Sobel, Frank	
May 22nd "	Baldoin, J.		
May 24th "		McNaines, P.	Struck by rock.
May 30th "	Gustafsen, C.		Explosion.
June 3rd "	Franzill, C.	1 Unknown	Explosion.
June 11th "	Gray, R.		
	Waglamm, Chris		
	Burgess, T.		
	Mercer, G.		
	Bradley, H.		Explosion.
	Italian (Unknown)		
	Italian (Unknown)		
	Italian (Unknown)		
	Galician (Unknown)		
	Francesco, D.		
July 6th "	Taylor, Fred		Drowned.
July 14th "	Bjorkman, Wm.	Bjorkman, J.	Explosion.
Sept. 22nd "	Barassi, F.		Struck by rock.
Oct. 19th "	Anderson, Frank.		Struck by rock.
Nov. 3rd "	Alhause, V.		
	Ferracro, G.		
	Geraciz, G.		
	Liberatore, G.		Explosion.
	Furfara, P.		
	Simms, J.		
	Lapoley, Ruk P.		
Nov. 3rd "	Elerton, Thos.		
	Strube, Nel. P.		Explosion.
	Christen, Clas.		
Nov. 3rd "		Coliberg, A. J.	Explosion.
Nov. 20th "	Bell, Duncan		Drowned.
Jan. 4th 1909	Rasmusen, Andy.		Explosion.
Jan. 4th "		Anderson, A.	Explosion.
Jan. 29th "	Cooper		Fell off ballast plow.
Jan. 29th "	Sesolin, Lugi	Inocente, D.	
		Revolon, E.	Explosion.
		Maschuin, G.	
Jan. 31st "	Gorgan, H.		Fell from trestle.

I attach copies of reports from the various District Engineers, and may say that, where mileage is referred to, it is that of the District, if not specially mentioned otherwise.

HUGH D. LUMSDEN, Chief Engineer.

HUGH D. LUMSDEN, ESQ.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

Dear Sir:—In conformity with your request for a report on the progress of the work on this District to March 31st, 1909, I beg to submit the following:—

LOCATION.

The final location was supposed to be finished at the end of the season of 1907, but, partly owing to the absence of the writer on District "F" for several weeks, and the fact that the District Engineer could not give the time necessary to study the details of this work during the latter part of the season, but more to the fact that it takes very careful study of the details of final location, requiring more time than is available when several parties are in the field at the same time, the result was that after a winter's study, it was found desirable to revise a large percentage of the 137 miles put under construction in the summer of 1908. This revision had to be made by the Resident Engineers, and, as they did not get established until the 1st of June, it took some little time to get this work done, and keep work laid out for contractors. The final location, as turned in at the close of the season of 1907, was revised from Miles: 65–77, from 82–85, from 94–101, from 104–106, from 106½–108, from 109–111, from 114–114½, from 115–115½, from 118–120, from 124–125, from 120–130, from 140–141, from 157–158½, from 162–163½, from 165½–167½, from 176¾–178½, from 183½–184½, from 188¼–189, from 191¾–192¾.

In all 42.75 miles of revision, and aggregating a saving, including the capitalized value of distance of about $200,000.00.

CONSTRUCTION.

Contract No. 1, mile 0 at Moncton to mile 50, was signed by the Grand Trunk Pacific Railway Co. on the 27th of March, 1907, but they did not sublet this work to Messrs. Corbett & Floesch, until late in the season, and no work was done until November, and on the 31st of March, 1908, only 9% of the work had been done, but during the past season they have made fair progress, having done 59%, working from both ends of the contract, and keeping track laid close behind the grading. The work done by these contractors is of first class quality, and the relations between them and the staff have been pleasant and satisfactory.

The following is a list of large culverts built on this contract:—

Mile	Size of Culvert	Name
2.55	10 x 9 arch	Jonathan Creek.
8.4	Road X'ing abutments	Overhead crossing.
10.65	12 x 12 arch.	North River.
17.5	10 x 10 arch.	Meadow Brook.
18.65	10 x 10 arch.	South Branch.
21.7	2 abuts. and 10 sets ped.	Canaan River.

The following is amount of track laid on main line and sidings:—

Contract No. 1.

Main Line Track:—

Mile	0.075	to mile	10.903	10.828 miles
"	11.004	"	21.62	10.616 "
"	45.455	"	50.000	4.545 "
			Total	25.989 "

3.500 Sidings:

Mile	6.108	1 siding	3500′	0.663 miles
"	14.536	1 "	3500′	0.663 "
			Total	1.326 "

Salisbury Ballast Pit.Track and Sidings:

Near mile 10.9 in all	6.953 miles
Total miles of track laid on contract No. 1	33.148 "

Contract No. 2, Mile 50 to 58, J. W. McManus & Company. This contract was signed on the 23rd of August, and work was commenced at once, but there has never been a proper plant or an adequate force employed on the contract, and on March 31st only 36½% has been done.

The following is a list of large structures built on this contract:

Mile	Built	Name
54.5	Two abutments	Red Bank Rd. X'ing.
56.8	Two abutments, Pedestals 1 to 8 Pier No. 9	Salmon River.
57.3	Two abutments	Salmon River Rd. X'ing.

The following is amount of track laid in this contract:—

Contract No. 2.

Main Line Track:

Mile 56.023 to Mile 56.904	0.881 miles
Connection with New Brunswick Coal & Railway Company near mile 56.5	1.060 "
Total miles of track laid on contract No. 2	1.941 "

Contracts Nos. 3 and 4, mile 58 to 97, and mile 97 to 164 respectively were signed by the Grand Trunk Pacific Railway Company on the 28th of March, 1908, and, after the usual delay in negotiating with different subcontractors, they sublet the work to the Toronto Construction Company, who in turn sublet most of it again, except track laying and ballasting, and some of it has been sublet again making four contracts, or three subcontracts.

There are only three points by which these contracts can be reached by rail, viz.: at Chipman, at the crossing of the Canada Eastern branch of the I.C.R., and at Plaster Rock. Work was commenced on these contracts in June, and up to March 31st, 37% has been done on contract No. 3, mile 58 to 97, and 28% on contract No. 4, mile 97 to 164.

The following is a list of large structures built on contracts Nos. 3 and 4.

Contract	Mile	Built
3	60.65	8 ft. arch.
3	Newcastle Stream 67	1 abt. 3 sets pedestals.
4	159.6	17 x 20 Con. arch.
	167.	10 x 9 Con. arch.

The Toronto Construction Company are making preparations to carry on track laying and ballasting this season with a view to completing contract No. 3 this year. No ballast deposits have been discovered convenient to this contract, and the nearest suitable material seems to be along the Intercolonial railway at Boiestown, which is 15 miles from the Transcontinental Railway.

During the winter the track was extended from mile 62.2 to Newcastle stream, and by May 15th the superstructure for the viaduct at that point may be delivered for erection.

Track laid on contract No. 3.

Main Line:		
Mile	58.002 to mile 60.752	2.75 miles
"	61.117 " 66.167	5.05 "
"	96.241 " 96.98	0.74 "
	Total Main Line	8.54 "
"Y" Mile	58.237	0.644 "
Spur to New Brunswick Coal & Railway Company, mile	58.237	0.341 "
Connection I.C.R.,	98.981	1.120 "
		2.105 "
Total track laid on contract No. 3		10.645 "

Contract No. 5, mile 164 to 195, was signed March 28th, 1908, by the Willard Kitchen Company, Ltd., this work being sublet by them very promptly, and sub-contractors were on the ground ready to commence operations in May. This work has been pushed vigorously, and, although this is by far the heaviest section in the District, they have done 48% of the total.

The following is a list of large culverts on this contract:—

Mile	Size	Name
167.	10 x 9	Grouse Brook.
174.2	17 x 10 arch.	Three Brooks.
190.3	8 ft. arch.	Falls Brook.

Contract No. 6, mile 195 to 255, Quebec boundary, was signed on the 9th of March, 1907, by Messrs. Lyons & White. This work was practically all sublet, except track laying and ballasting, but the plant and methods adopted by the subcontractors have not been conducive to rapid progress, or economical handling of the work. On the 31st of March, they had done 19% of the work. It is only

fair to say that the summer of 1907 was most unfavourable for railway work that has been known for many years. During the year to March 31st, 1909, they have done much better, and now have 67% of the total work done.

The following is a list of structures built on contract No. 6.

Mile	Structure	Name
197.2	2 abutments, 12 sets pedestals	Four Mile Brook.
200.9	14′ arch culvert	Nine Mile Brook.
203.9	14′ arch culvert	Chapel Brook.
207.1	2 abutments, 1 pier, 2-75′ through girder	Grand River.
209.4	2 abutments, 40′ deck	Sigas River.
213.4	2 abutments, 94′ 8″ span	Quisibis River.
222.6	10′ arch culvert	Theriault Brook.
226.4	10′ arch culvert	Fournier Brook.
227.6	2 abutments, 68′ through girder	Iroquois River.
229.8	1 pier	Madawaska River.
229.9	2 abutments	Ferry Crossing.
232.9	17′ arch culverts	Three Mile Brook.
233.9	10′ beam culvert	
234.0	8′ arch culvert	Four Mile Brook.
236.0	14′ arch culvert	Six Mile Brook.
241.4	12′ arch culvert	D'aigle Brook.
242.9	2 abutments	Baker Brook.
244.0	8′ concrete arch	Dugals Brook.
250.3	10′ arch culvert	Caron Brook.

RIGHT-OF-WAY.

Right-of-way has been practically all settled for, except in Madawaska county, where the situation has become extremely acute from various causes. Full powers have been given to Mr. J. M. Stevens to handle this matter in Madawaska, and distinct improvement is already visible.

I have had a valuation made of the timber lands held under lease, or owned by the Crown or privately, through which the line passes, so that the Commissioners will be in a position to make an intelligent settlement with the various parties.

CASUALTIES ON CONSTRUCTION.

No serious accidents have occurred to any of the members of the Engineering Staff, but there have been a number among the employees of contractors from various causes, 10 men being killed and 8 injured. These accidents have already been reported to you.

POLICE AND FIRE PROTECTION.

The police force has been doing good service and the Commissioner and Chief of Police deserve special mention for their vigilance and effectual work.

In the matter of fire protection, I am pleased to be able to say that the contractors have heartily co-operated with the Engineers and Firewardens, and no damage to adjacent property occurred.

C. O. FOSS,
District Engineer "A."

HUGH D. LUMSDEN, ESQ.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

SIR:—I beg to enclose you herewith a report of all work done in my District from March 31st, 1908, to March 31st, 1909, this report covering the one already made to 31st of December, 1908.

LOCATION SURVEYS.

The final location surveys throughout the entire original District ending at Weymontachene are completed.

The eastern portion of District "C" from Weymontachene westwards, a distance of 107 miles, having been added to District "B," a revision location party has been sent out, as the work is important from its rough nature and a slight change in alignment here and there may mean a saving of thousands of dollars.

FINAL MILEAGE.

The final mileage in my District is now as follows:—

From the New Brunswick boundary to the north abutment of the Quebec bridge	203.85	miles
From the north abutment of the Quebec bridge to the western end of the Grand Trunk Pacific Company's contract near Weymontachene	196.38	"
From the western end of the Grand Trunk Pacific Company's contract to the western end of mileage taken over from District "C" and added on to District "B"	107.00	"
Total mileage	507.23	"

LAND SURVEYS.

Our land survey party has almost completed its operations, the small amount of work remaining to be done consisting of the correction of land lines, the re-running of boundary lines of timber limits and valuing of timber on the 107 miles taken over from District "C," and added to District "B."

I may say that nearly the whole of the land necessary for our right-of-way has now been purchased on fair and equitable terms, as very few of the land owners are holding out for higher prices than those offered them by our land agents.

CONSTRUCTION STAFF.

District "B," including the 107 miles taken over from District "C," is divided into twelve divisions, sub-divided into forty-six residencies. The whole of the original mileage of District "B," and about 20 miles of that portion of District "C," are now under active construction. On quite a few of the residencies the grading is completed, any work remaining to be done consisting of steam shovel work, which will be proceeded with as soon as the snow is off the ground. Residencies 21 and 22 are completed as regards grading and track laying, ballasting and bridging. The personnel of these two residencies have been moved to new residencies on the Upper St. Maurice. Owing to the work being so far advanced, we have been obliged to dispense with 13 timekeepers and 8 extra axemen, and 18 concrete inspectors have been let go for the winter months. Some of the latter will, however, be taken on again as soon as the concrete work is resumed in the spring.

TRANSPORT.

Arrangements were made in December to haul supplies to the Residencies on the Upper St. Maurice. Tenders were asked for and the work given to the lowest tenderers.

CASUALTIES ON ENGINEERING STAFF.

No fatal accidents have taken place on our staff during the year. There have been a few cases of typhoid fever, but the parties so attacked have all recovered. The only death which occurred was that of Mr. C. Belisle, rodman, Residency 11, due to appendicitis.

CASUALTIES ON CONSTRUCTION.

Among the contractors' employees there were a number of casualties, all of which have been reported to you.

PROGRESS OF CONSTRUCTION.

The mileage herewith stated is computed from the New Brunswick boundary.

The progress made on the various contracts since the 1st of April, 1908, has been most satisfactory. As previously stated, the whole of District "B" and 20 miles of that portion of 107 miles taken over from District "C," are now under construction, and on many of the residencies the grading is completed, the work remaining to be done consisting of steam shovel work, for which the contractors are making arrangements this winter. One steam shovel outfit has been hauled in over the winter roads from Notre Dame du Lac, on Lake Temiscouata to Blue river, at about the 20th mile. A second outfit will be hauled in from Clairs, on the Temiscouata Railway, as soon as the snow is off the ground. A steam shovel plant has been taken in from St. Alexandre on the I.C.R., to the foot of Lake Pohenegamook, at mile 30. Two other plants have been hauled over the winter roads to St. Perpetue, one to be used at River Ouelle, mile 95, the other at mile 118. The Messrs. Davis will put in a plant of their own at mile 139 and Fourche du Pin, and a firm of subcontractors is now working with a steam shovel plant at the Etchemin river, mile 164. The large cut at the Chaudière river, mile 201, is being taken out with a steam shovel. West of the Quebec bridge the Messrs. Davis will have their steam shovel plants operating on their contract of 50 miles, and will push this part of the work, as it is their intention to complete it in the autumn.

On Messrs. Macdonell & O'Brien's 100 mile contract (No. 10), steam shovels will complete the filling which yet remains to be done. They will have seven steam shovel outfits employed on this work and on ballasting. It is their intention to put on a passenger train between Hervey Junction and the end of steel as soon as the Milieu river bridge superstructure is erected in July.

On the Grand Trunk Pacific Railway Company's contract (No. 11) of 45 miles, the grading is very well advanced. The contractors have hauled two steam shovels over the winter roads which will be operated on this contract.

On the 20 miles at the easterly end of Contract 12, the contractors have hauled supplies, and the construction of this portion is now being proceeded with.

From the 1st of April, 1908, to the 1st of April, 1909, the following are the average number of men, teams, locomotives and steam shovels employed in my district.

On the Davis Contracts, Nos. 7, 8 and 9: men, 2,632; horses, 673; locomotives, 9; steam shovels, 4.

On Macdonell & O'Brien's Contract, No. 10: men, 2,096; horses, 258; locomotives, 22; steam shovels, 7.

On the Grand Trunk Pacific Railway Company's Contract, No. 11: men, 930; horses, 119; locomotives,——; steam shovels, ——.

On Macdonell & O'Brien's Contract, No. 12: men, 294; horses, 25.

BRIDGE SUBSTRUCTURE.

The construction of our concrete substructures, piers and abutments, arch and other culverts, has been proceeded with in a very satisfactory manner.

The following is a list of the larger structures which are now completed:

Mile.	Name.	Description.
66	River du Loup bridge	Span.
95	River Ouelle	40 ft. arch culvert.
112	River East Bras d'Apic	Span.
114	River West Bras d'Apic	Span.
118	River Mechant Pouce	Span.
129	River du Sud	25 ft. arch.
132	River du Milieu	40 ft. arch.
137	Otter Creek	40 ft. arch.
139	River Fourche du Pin	Spans.
142	North West Branch	40 ft. arch.
158	Abenakis River	Spans.
164	Etchemin River	Spans.
177	Quebec Central Railway Overcrossing	Span.
190	River le Bras	Span.
232.5	River Portneuf	Spans.
247	River St. Anne	Spans.
248.5	River Noire	Spans.
254.5	River Charest	Viaduct.
269	River Batiscan	Viaduct.
286.8	River Tawachiche	Span.
288.8	River Roberge	Span.
299	River Eaux Mortes	Spans.
301	River du Milieu	Viaduct.
302.5	River Brochet	Span.
305.3	River Brochet	Span.
306	River Brochet	Span.
312	River Brochet	Span.
323	River Little Bostonnais	Spans.
328	River Big Bostonnais	Spans.
331.8	River Croche	Spans.
332	River St. Maurice	Spans.
333	River Au Lard	Spans.
348.6	River Vermillion	Viaduct.

BRIDGE SUPERSTRUCTURE.

No steel superstructure has as yet been erected between the Quebec bridge and the New Brunswick boundary.

To the west of the Quebec bridge the following superstructures are completed:

Mile.	Name.	Description.
254.5	River Charest	Steel viaduct.
269	River Batiscan	Steel viaduct.
274.5	Public Road Crossing	Steel viaduct.
286.8	River Tawachiche	1–44′ D.P.G.
288.8	River Roberge	1–40′ T.P.G.
299	River Eaux Mortes	1–120′ D.P.G.
301	River du Milieu	Viaduct in course of erection
328	River Big Bostonnais	4–90′ D.P.G.
331.8	River Croche	4–90′ D.P.G.
332	River St. Maurice	6–140′ T.T.
333	River Au Lard	1–75′ T.P.G.

TRACK LAYING.

East of the Quebec bridge very little track has been laid, the only portion laid being from the Quebec Central Railway Crossing to the Etchemin river, a distance of 13 miles. To the west of the Quebec bridge, the track is laid from mile 3.2 to mile 19.9. From mile 22.1 to mile 28.8; from mile 50 to mile 96.5; from mile 104.3 to mile 118.9; from mile 119.6 to mile 144.3—a total of about 122 miles.

Rails and fastenings have now been delivered for contracts Nos. 8, 9, 10 and 11, and the same will be delivered for contract No. 7 during the summer of this year.

BALLASTING.

No ballasting has been done as yet east of the Quebec bridge. Westerly from this point, the track is fairly well ballasted between miles 50 and 94, and also between miles 124 and 129.

FENCING.

East of the Quebec bridge the railway fences are almost completed from the Chaudière river, mile 254 to 184.

Westerly the fences are completed with the exception of a few gaps for a distance of 84 miles. Posts and fence wire have been delivered during the winter for the balance of the fencing to be erected in my district.

TELEGRAPH LINE.

The telegraph line has not been started east of the Quebec bridge, though the contract for the work has been let. The same remark applies to that portion of the line between the Quebec bridge and mile 254. West of mile 254 towards La Tuque, Messrs. Macdonell & O'Brien have erected 40 miles of telegraph line.

RAILWAY CROSSINGS.

The interlocking appliances at the level crossings of the C.P.R. at St. Basile, mile 230.4, and of the Canadian Northern Quebec Railway at Hervey Junction, mile 276.5, have been completed and accepted by the Board of Railway Commissioners.

WATER SERVICE.

Our water plants at Hervey Junction, mile 276.5, and at Roberge creek, mile 288.6, are completed and giving entire satisfaction.

In conclusion, I may state that the contractors have used their utmost endeavours to push the work to a speedy and satisfactory conclusion.

A. E. DOUCET,
District Engineer "B."

HUGH D. LUMSDEN, Esq.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR:—I beg to submit the following report of work done on District "C" from March 31st, 1908, to March 31st, 1909.

Boring Party No. 1, under Mr. S. G. Smith, was organized February 1st, 1908, and was sent to Weymontachene to work westerly, and have sent in results of soundings at the following bridge sites:—

Manuan river, Manachin creek, Ribbon river, Ribbon river (second crossing), Pickui creek, Travers lake, Kamitsgamak lake, Boucher creek, Menjobagus lake, Menjobagus lake (second crossing), Mouche creek, East Branch of Gatineau river, Martin river, Little Pitch Pine creek, Sergeant creek, East Cache creek, Oscalaneo river, Haycock lake, Susie river, Hamilton lake, Kikek river, Mamaguish river, Durant creek, Durant creek (second crossing), Durant lake narrows, Atik river, Atik river (second, third and fourth crossings), Canyon creek.

Boring Party No. 2, under Mr. N. Tooker, was organized January 15th, 1908, and sent to the western end of the district to work towards the east until they met Boring Party No. 1, and they have sent in results of soundings at the following bridge sites:—

Nawapitichin creek, Molesworth lake (East and West Narrows), Harricanaw river, Peter Brown creek, Natagagan river, Cedar creek, Coffee river, Poplar river, Bell river, Adelphus creek, Christmas creek, Megiskan river (West and East crossings), Sunday river, Crooked creek, besides soundings at most of the principal culvert sites and at all the muskegs crossed by the line.

This party also ran two miles of location, changing the Bell river crossing.

Early in October the above two parties met, and joining forces ran a preliminary twenty-two miles from the old Atik cache to the west crossing of the Megiskan in an attempt to cut out some of the heavy work near Jocko creek. Both parties then came out and were disbanded.

Party No. 3, under Mr. A. L. McDougall, left Ottawa on the 13th of May, 1908, and ran two miles of exploration, fifteen miles of preliminary, and forty miles of final location from Weymontachene to Menjobagus lake, returning to Ottawa and disbanding on December 18th.

Party No. 6, under Mr. W. D. Robertson, left Ottawa on the 15th of May, 1908, to run final location from Menjobagus lake to near the Susie river. This work was completed on the 10th of January, 1909, when they returned to Ottawa and party was disbanded, after running seventy-seven miles of exploration and sixty-five miles of final location.

W. D. Robertson reorganized Party No. 6 on the 26th of January, and proceeded to a point north of Grand Lake Victoria to run some exploration lines between the Atik and Megiskan rivers, where there was a fair prospect of improving the line, and he has so far run fifty-six miles, and is still engaged on this work.

Mr. S. G. Smith organized a small party in February, 1909, to connect land lines of the recent surveys made by the Quebec Government in the vicinity of Lake Abitibi with the Transcontinental Railway. He is still engaged on this work, but will be finished in a short time.

On March 1st, 1909, one hundred and seven miles on the eastern end of District "C" was turned over to District "B," and 31.6 miles of the eastern end of District "D" added to District "C."

District "C" is now divided into four divisions, the first two divisions having five residencies, and the other two four each.

No construction work has been done on this District, except on the 31.6 miles turned over from District "D," which amounts to 149.5 acres of clearing. However, the contractors are getting in supplies this winter to enable them to push the

work during the coming summer. Mr. Geo. A. Butler has been appointed Resident Engineer on this work.

I am glad to report that there were no deaths on this district during the year, and very few cases of illness.

(Signed) A. N. MOLESWORTH,
District Engineer "C."

HUGH D. LUMSDEN, Esq.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR:—As instructed in your letter of the 5th instant, I have the honor to submit the following report on the work carried on in my district from March 31st, 1908, to March 31st, 1909.

SURVEYS.

Party No. 5, under Mr. G. F. Hanning, was reorganized on May 24th, 1908 (Mr. S. A. Desmeules taking Mr. Hanning's place a month later), and commenced final location at Mattagami river, mile 135, running westerly to Kapuskasing river, mile 173, where connection was made with final location of Party No. 6. The party was disbanded in September. Mileage run, final location, 38 miles.

Party No. 6, under Mr. A. F. Cotton, was reorganized on May 20th, 1908, and commenced final location at Kapuskasing river, mile 173, running westerly to the west end of this district, where connection was made with final location of District "E." The party was disbanded on the 10th of December, 1908. Net mileage of final location run, 75 miles.

CHANGE OF DISTRICT BOUNDARIES.

According to the location laid down by above mentioned parties, and the previously finished final location, the length of the district, as regards final location done on it, was 248.046 miles. On the 1st of March, 1909, however, that portion of the district east of the Interprovincial boundary between Quebec and Ontario, being in length 31.6 miles, was transferred, for the supervision of the construction thereon, to the jurisdiction of District "C."

BORINGS.

A drill party was organized on the 20th of June, 1908, in charge of Mr. M. Courtright, and commenced borings at Mattagama river, mile 135, taking soundings on the line and at stream crossings as far west as Opazatika, mile 193. This party was disbanded on the 31st of November, 1908.

CONSTRUCTION.

Contract No. 14. The western portion of this contract, viz.: between the Interprovincial boundary and Cochrane Junction, district mileage 31.624—103.68, is situated in District "D." The Grand Trunk Pacific Railway Company, to whom the contract was let, sublet the work originally to the J. H. Reynolds Construction Company, and, between March 31st, 1908, and February, 1909, grading, etc., was executed to the value of $217,000.00. Owing, however, to the unsatisfactory progress made and other causes, the work was taken out of Messrs. Reynolds' hands, and placed during February, 1909, under the management of Messrs.

Foley, Welch & Stewart. That firm has delivered on the works a large quantity of supplies, material and plant, and shows every indication of being in a position to rush the work during the ensuing summer. Average daily force on this contract at the end of March, 1909, was 170 men and 18 horses.

Contract No. 15. District mileage 103.68 to 203.65, Messrs. E. F. & G. E. Fauquier, contractors. This contract was let on the 28th of March, 1908, but owing to the difficulty in getting access to their work during the summer, the contractors were unable to get much plant or supplies on the ground until the winter set in. Considerable progress, however, has been made with the grading, work being in hand between Cochrane Junction (District mileage 103.68) and Ground Hog river (District mileage 154). The foundations of the large structure across the Frederickhouse river are ready for concrete abutments, piers and pedestals. The average daily force on this contract at the end of March, 1909, was 1,300 men and 178 horses. There are two steam shovels at work. On the 31st of March, work had been executed and material delivered on the ground to the value of $369,178.00, being about 9½% of the total estimated cost of the contract.

Contract No. 16. Extending, as far as District "D" is concerned, from west end of Messrs. Fauquier's contract (District mileage 203.65) to west end of District "D" (District mileage 248.05), which is let to Messrs. M. P. & J. T. Davis. Work has not yet been commenced.

TRACK MATERIAL.

Two material yards have been prepared at Cochrane Junction in which rails, angle bars, spikes and bolts and nuts, equal to trackage of about 85 miles, have been stored. Messrs. Fauquier have plenty of ties on the ground, or cut ready for delivery, and Messrs. Foley, Welch & Stewart are making similar arrangements.

DISTRICT OFFICES.

A contract was given to Messrs. O'Boyle Bros., Sault Ste. Marie, Ont., on the 12th of March, 1909, for the erection of offices for the District Engineer and Staff, at Cochrane.

STAFF.

The writer was appointed District Engineer in the beginning of October, 1908, in place of Mr. S. R. Poulin, who was transferred to District "F." Mr. John Aylen, Assistant District Engineer, resigned in December, 1908, Mr. A. H. Willet being appointed to the vacancy thus created on the 1st of January, 1909. Owing to the almost complete cessation of work on the G.T.P. contract for the last few months, during which the Reynolds Construction Company were subcontractors for the grading, it was found necessary to considerably reduce the engineering staff located on that contract. Now that Messrs. Foley, Welch & Stewart are opening up the work again, the different residencies are having their full complement of men appointed, as the occasion arises.

TRANSPORT.

During the summer of 1908, supplies were taken in by water route to cachés 6, 7a, 8 and 8a (Mettagama, Kapuskasing, Opazatika and Missinabie rivers). During February and March, 1909, about 250 tons of supplies were delivered by contract to various residencies east and west of Cochrane, being requirements sufficient for about ten months. Owing to the opening up of construction, the following cachés have been closed: Abitibi river (mile 95), Mettagama river (mile 135).

North East Abitibi Caché has been transferred to District "C."

ACCIDENTS AND SICKNESS.

I am happy to be able to say that no accidents have taken place during the year to any of our staff in the field, nor have any accidents occurring to contractors' employees been brought to my attention. There was, however, an epidemic of typhoid fever at Abitibi river crossing last fall. It is essential therefore that strict sanitary regulations should be enforced both in contractors' and engineers' camps, as the nature of the country where the work is situated is such as to readily foster outbreaks of fever, unless great cleanliness is observed.

A. G. MACFARLANE,
District Engineer "D."

HUGH D. LUMSDEN, ESQ.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR:—I have the honor to submit the following report on the work carried on in District "E" from March 31st, 1908, to March 31st, 1909.

The mileage covered in this report is from District mileage 0 at east end of district, equal to through mileage 1172.85, to District mileage 254.63, equal to through mileage 1427.48.

On April 1st, Party 1, under Mr. A. McLennan, which was reassembled January 23rd, to make some revisions of final location (projected through the winter), were at mile 176, having started at mile 157. They worked west during the summer to mile 254.63—west end of district—making revision amounting to 58 miles of revised final location.

In this distance the quantities were reduced approximately	$529,127.00
Distance shortened 3.37 miles—equal to	303,300.00
Curvature taken out, 140 degrees, equal to	11,200.00
Rise and fall taken out, 65 ft., equal to	3,900.00
Total	$847,527.00

In October this party was disbanded, Mr. A. McLennan taking charge of Division 5. Six residencies were built, and two more will be finished shortly, covering contracts Nos. 18 and 19.

CONSTRUCTION WORK.

The first contract on the District, No. 18, was let to Messrs. E. F. & G. E. Fauquier, on March 28th, 1908. On March 25th, Mr. W. P. Wilgar was appointed Division Engineer, and started from Nepigon with a party for the line, to check over alignment and levels, and get engineer's quarters built.

On June 11th, the contractors' agents, the Nepigon Construction Company, started work on a tramway to connect Lake Helen with Lake Nepigon, a distance of 18 miles, and finished a narrow gauge road on September 26th. They put a tug and scow on Lake Helen, and Messrs. Revillon Bros. built a steam barge on Lake Nepigon, thus connecting Nepigon station with the head of Lake Nepigon. Contractors started in November to move supplies, and up to December 4th, when navigation closed, had taken up 1,500 tons for the prosecution of the work. Clearing right-of-way was started in August and carried on to date. Grading was commenced in October and is also going on to date, contractors having about 400 men at work, which is all their supplies allow for until navigation opens again.

Contracts have been let to Messrs. M. P. & J. T. Davis for the first 160 miles (contracts Nos. 16 and 17), October 29th, and to Messrs. O'Brien, Fowler & McDougall Bros., mile 235 to mile 254.63 (contract 19), September 19th.

CASUALTIES AND SICKNESS.

I am happy to state that there has been no sickness or accidents among the engineering staff. In connection with construction, however, there were two accidents by which eight men were killed. These were previously reported to you.

The contractors have two doctors and one nurse on the work, and one permanent and one temporary hospital, and all sickness and accidents are well looked after.

BUSH FIRES.

Although the contractors were burning right-of-way since August, no bush fires have occurred outside of the right-of-way.

TRANSPORT.

Supplies for one year were put in last June for the eight residencies on contracts Nos. 18 and 19, west of mile 160. These were moved by contract in a satisfactory manner. Cachés 12a, 13, 13a and 15 have been closed and supplies transferred to the Division Engineers in charge. Caché 14a has also been turned over to the Division Engineers, but not moved.

MAIL SERVICE.

A weekly mail service was carried on through the summer, and semi-monthly through the winter.

(Signed) T. S. ARMSTRONG,
District Engineer "E."

HUGH D. LUMSDEN, ESQ.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR:—I have the honor to submit the following report on construction and location in District "F" from the 31st of March, 1908, to the 31st of March, 1909.

I shall divide my report in two sections; the first concerning the progress of construction on the J. D. McArthur contract (No. 21), from Winnipeg East 245 miles to Lake Superior Junction; the second concerning the completion of the final location on the 128 miles east of Lake Superior Junction, and the progress of construction on the same portion, from the 19th of September, 1908, the date on which contracts Nos. 20, 20a and 19 were given to Messrs. O'Brien, Fowler & McDougall Bros., until March 31st, 1909.

CONTRACT NO. 21.

I shall pursue the course followed in my previous report, viz.: taking the work on each Division separately from Winnipeg eastward to Lake Superior Junction.

1ST DIVISION EAST OF WINNIPEG, DIVISION NO. 9.

The grading on this Division, which is 75 miles long, is all completed, and the track on the main line is all laid, as well as one main siding at about every seven

miles. The permanent structures comprising the two branches of the Brokenhead river, the Whitemouth river, and the crossing over the Canadian Pacific Railway have all been completed. These consist of concrete abutments, piers and steel bridges. The line has been ballasted for 50 miles, and surfaced on the balance of the Division. There are three tanks erected and practically completed at every 25th mile. There are, besides, about twelve miles of sidings at the terminal yard, east of Winnipeg, which have been graded and lifted, while the concrete foundations for an 18 stall roundhouse and turntable for the same at that point are also completed. The telegraph line is completed for a distance of 75 miles.

2ND DIVISION EAST OF WINNIPEG, DIVISION NO. 8.

This Division is 33 miles long. The grading is all completed, also three permanent trestles and all the temporary trestles. The track is laid over the whole of this division, and all temporary trestles have been filled, with the exception of two, which have developed into sink holes, which may delay ballasting for a few weeks. The telegraph line is completed for nine miles on said division, and construction is progressing well.

3RD DIVISION EAST OF WINNIPEG, DIVISION NO. 7.

This Division is 50 miles long, and had the heaviest work. The grading is practically finished, and all permanent and temporary trestles are completed, so that no delay will be occasioned to track laying when operations east of Winnipeg river are resumed. The track is laid for five miles east of the Winnipeg, and the Canadian Bridge Company have all the bridge material on the ground for the erection of the steel superstructure. They are erecting the false work sufficiently strong to permit of the circulation of construction trains. The flow of ice will delay operations some, but it is fully expected that the track laying will be resumed east of that point on June 1st. The superstructures of bridges are all completed.

4TH DIVISION EAST OF WINNIPEG, DIVISION NO. 6.

This Division is 46 miles long. The grading at the end of March was sufficiently advanced to justify us in saying that the track laying will not be delayed when it reaches that point. Three of the heavy embankments are completed sufficiently to permit track laying, while the other two have temporary trestles erected sufficiently strong to permit passage of construction trains.

5TH DIVISION EAST OF WINNIPEG, DIVISION NO. 5.

The last 43 miles to the end of this contract (No. 21), of the J. D. McArthur Company is all graded. The track is laid on two and one-half miles. The resuming of track laying operations will probably be delayed for some weeks, on account of the depth of snow and ice through the cuttings, but a large force will be put on as soon as the snow has sufficiently disappeared to permit us resuming work.

SECTION EAST OF SUPERIOR JUNCTION.

On April 1st, 1908, there were two locating parties in the field revising and improving the final location eastward to the east end of District "F."

Party No. 5, under Mr. H. J. Mackenzie, completed the revision of the final location on the first 60 miles east of Superior Junction, and disbanded his party on August 21st, 1908.

Party No. 2, under Mr. F. P. Moffatt, revised and completed the balance of

the final location in District "F," and the said party was disbanded on the 12th of September, 1908.

Since the letting of contracts Nos. 19 and 20 to Messrs. O'Brien, Fowler & McDougall Bros., the work on same has progressed as follows:—

By the adoption of the southern route, Superior Junction was moved 11.13 miles east, and contract No. 20 is subdivided into two sections, Nos. 20 and 20a.

Contract No. 20a.

On this contract the grading is all completed and track laying done over the whole distance on the 31st of December. The two principal structures are pile bridges over the Sturgeon river, and the Sioux lookout crossing at Pelican lake.

Ballasting and telegraph line will be completed as soon as spring weather will permit.

Contract No. 20.

On this contract which extends from the new point of Superior Junction eastward to Dog lake, a distance of 12 miles, the clearing is all done, and the grading is well advanced, more than 50% being completed on March 31st, and the whole contract will probably be ready for track laying in August, 1909.

Contract No. 19.

On this contract 65 miles of work have been opened during the winter months, making a distance of 83 miles eastward from Superior Junction. On this portion all the heavy points have been opened up. Camps, plant and sufficient supplies have been brought in during the winter months to last until after the opening of navigation on Sturgeon river and Sturgeon lake. The work is progressing in a satisfactory manner.

CASUALTIES.

I regret to report that there have been a large number of accidents on construction, two of them very serious. There were thirty-nine deaths reported to me, and fifteen injured in the different accidents.

MEDICAL SERVICE.

The medical service, though taxed to its limit by a very serious epidemic of typhoid fever during July, August and September months, has done excellent work. The following is a report from Mr. W. A. Quibell, Commissioner of Police:—

"The undersigned respectfully begs to submit his annual report for the year ending March 31st, 1909.

"During the period covered by this report, we have had the usual number of "offenders against the provisions of Section 150 of the Criminal Code. The tempta- "tion to make money out of the illegal sales of liquor is quite as strong as at the "commencement of the work. In order to fully protect the men as well as all "connected with the work of building the road, it has been found necessary to "patrol practically every mile on which men are employed. This plan has been "found very successful, and accounts for the small amount of crime and violence "along the line of railway. It has been found very difficult to arrest the offenders "for the reason that, as soon as they are observed, they desert the stock of liquors "in their possessions and hide themselves from the officers. This statement will "be more clearly understood, when it is pointed out, that the total penalties "inflicted for the twelve months, only amounted to $339.00 while the number of "bottles, jars, cases and barrels of liquors numbered no less than 285. In this

"connection, it may also be pointed out the recent amendments to the Criminal "Code, by which the penalties and punishments are greatly increased, have had "their full effect.

"The largest number of constables employed in any one month of this period "was 10. That amount is at the present reduced to 6. An increase is anticipated "as soon as the new work gets well under way.

"We have to record the demise of Constable William R. Stephen, one of the "oldest and most respected members of the Transcontinental Police Force."

"All of which is respectfully submitted."

S. R. POULIN,
District Engineer "F."

STATEMENT SHOWING APPROXIMATE ESTIMATED COST OF STEEL BRIDGES AND AMOUNTS PAID ON CONTRACTS TO MARCH 31, 1909.

District "A."—

Name	Through Mileage	Description	Contractor	Est. weight of steel in lbs.	Rate per lb. c.	Timber	Rate per M. B. M.	Total est. cost of superstructure	Paid to Mar. 31, 1909
Over Crossing Highway	8.50	1 18′ dk. pl. gr. span	Dom. Br. Co.	12,000	4.375	5,500	$47.00	$ 783.50	
Canaan River Viaduct	21.70	5 30′, 5 60′ and 1 80′ dk. pl. grs.; 5 towers, 30′ span.	Can. Fdy. Co.	840,000	4.5	73,400	47.00	41,250.00	$22,466.54
Over Crossing Red Bank Rd.	54.60	1 66′ thro. pl. gr. span	Dom Br. Co.	96,000	4.375	9,800	47.00	4,660.60	
Salmon River	57.00	4 60′, 2 80′, 4 40′ dk. pl. grs. spans; 4 towers 40′ span and 4 150′ dk. truss spans	Can. Fdy. Co.	2,200,000	4.65	160,000	47.00	109,820.00	35,947.23
Newcastle Stream	67.00	4 40′, 6 60′ dk. pl. gr. spans; 4 towers 40′ spans and 1 rocker bent	Structural Steel Co.	1,000,000	3.95	72,000	37.00	42,164.00	9,511.41
Tobique River	165.20	3 140′ dk. truss spans, 2 100′ and 1 80′ dk. pl. gr. spans.	Can. Fdy. Co.	1,335,400	4.38	92,000	46.00	62,722.52	
Little Salmon River	184.71	25 100′ 3″, 24 58′ 9″ thro. gr. spans, 24 towers, 58′ 9″ spans.	Dom Br. Co.	14,000,000	4.68	518,000	46.00	679,028.00	214,053.54
Little River	192.00	11 40′, 9 60′, 2 80′, 1 100′ dk. pl. gr. spans and 11 towers 40′ span	Structural Steel Co.	2,480,000	3.95	169,000	37.00	104,213.00	19,047.20
Four Mile Brook Viaduct	197.60	5 60′, 6 30′, 2 59′ 7″ dk. grs. and 6 towers 30′ span	W. P. McNeil & Co.	985,000	4.34	83,000	47.00	46,069.00	15,741.26
Grand River	207.80	2 88′ thro. pl. gr. spans	"	307,000	3.94	27,000	42.00	13,230.00	5,342.87
Sigas River	209.80	1 80′ dk. pl. gr. span	"	93,000	3.89	13,000	42.00	4,164.00	1,891.49
Quisibis River	213.80	1 99′ thro. pl. gr. span	Dom. Br. Co.	184,000	4.39	16,000	47.00	8,830.00	3,142.58
Green River	220.90	2 77′ thro. pl. gr. spans	W. P. McNeil & Co.	240,000	4.07	23,500	42.00	10,755.00	4,543.20
Iroquois River	227.80	1 66′ thro. pl. gr. span	Dom. Br. Co.	97,000	4.39	11,700	47.00	4,808.00	2,442.17
Madawaska River	230.20	2 99′ thro. pl. gr. spans	"	370,000	4.39	29,600	47.00	17,634.00	5,548.36
Over Crossing Ferry Rd.	230.30	1 33′ thro. pl. gr. span	"	34,000	4.625	7,200	47.00	1,841.00	
Baker Brook	243.80	1 80′ dk. pl. gr. span	W. P. McNeil & Co.	93,000	3.89	13,000	42.00	4,164.00	1,892.27

STATEMENT SHOWING APPROXIMATE ESTIMATED COST OF STEEL BRIDGES AND AMOUNTS PAID ON CONTRACTS TO MARCH 31, 1909.

District "B."—

Name	Through Mileage	Description	Contractor	Est. weight of steel in lbs.	Rate per lb. c.	Timber	Rate per M. B. M.	Total est. cost of superstructure	Paid to Mar. 31, 1909
Etchemin River	420.38	2 70′ and 2 100′ dk. pl. gr. spans	Dom. Br. Co.	446,400	4.72	50,400	$55.00	$ 23,842.08	$ 12,132.23
Over Crossing Q. C. Ry.	433.19	1 66′ thro. pl. gr. span	"	64,800	4.72	12,000	55.00	3,718.56	2,575.26
River le Bras	446.54	1 66′ thro. pl. gr. span	"	64,800	4.72	12,000	55.00	3,718.56	1,189.13
Under Crossing I. C. Ry.	457.81	1 88′ thro. pl. gr. span	"	150,000	4.72	13,800	55.00	7,839.00	2,646.49
Highway Viaduct	458.21	1 50′ and 2 40′ thro. pl. gr. spans	"	46,000	4.72	12,200	55.00	2,842.20	1,777.03
CapRouge HighwaySwing	462.34	1 89′ 2″ swing thro. truss span	"					2,200.00	
Cap Rouge Viaduct	462.34	1 rocker bent, 30 towers 40′ span; 32 40′, 27 61′ dk. pl. gr. spans; 1 125′, 1 150′, 1 160′ deck truss spans	"	9,146,000	3.94	554,300	42.00	383,633.00	322,764.40
River aux Pommes	479.24	1 50′ dk. pl. gr. span	"	46,200	4.04	9,500	47.00	2,312.98	1,230.57
Jacques Cartier River Viaduct	481.74	1 rocker bent, 2 towers 30′ span, 2 30′ 2 60′, 1 80′ dk. pl. gr. spans; 1 100′ riv. dk. truss span	"	705,000	4.19	52,900	50.00	32,184.50	18,672.82
Portneuf River	488.64	2 60′ and 1 100′ dk. pl. gr. spans	"	270,000	4.09	32,000	47.00	12,547.00	7,127.31
Grand Bras d'Arme	498.64	1 40′ dk. pl. gr. span	"	31,300	4.44	7,800	52.50	1,798.22	898.51
Lachévrotiere River	499.67	1 33′ thro. pl. gr. span	"	37,900	4.84	7,000	52.50	2,201.80	902.64
St. Anne River	503.24	2 70′ and 2 100′ dk. pl. gr. spans	"	470,000	4.09	47,600	47.00	21,460.20	12,217.31
River Noire	504.74	2 50′ dk. pl. gr. spans 1 125′ deck, truss span	"	353,000	4.18	31,000	47.00	16,212.40	10,722.23
Nigerette River	505.74	1 30′ dk. pl. gr. span	"	21,000	4.44	6,500	52.50	1,273.65	559.74
Charest R. Viaduct	510.44	4 towers 30′ span, 4 30′, 1 45′, 3 60′, 1 75′ dk. pl. gr. spans	"	741,000	3.95	60,800	50.00	32,309.50	34,109.33
Batiscan River	524.74	2 towers 40′ span, 2 40′, 3 60′ dk. pl. grs., 2 100′ and 1 200′ dk. Truss spans	"	1,394,000	4.23	101,300	50.00	64,031.20	64,135.06
Over Crossing Public Road	530.54	3 skewed gr. spans	"	33,000	4.72	7,200	47.00	1,896.00	1,909.07

Name	Through Mileage	Description	Contractor	Est. weight of steel in lbs.	Rate per lb. c.	Timber	Rate per M. B. M.	Total est. cost of superstructure	Paid to Mar. 31, 1909
Tawachiche River	542.74	1 44′ thro. pl. gr. span	Dom. Br. Co.	59,000	4.84	8,300	$52.50	$ 3,291.35	$ 2,170.65
Roberge Creek	544.74	1 40′ o. to o. d. t. thro. pl. gr. span	"	93,600	4.84	16,000	52.50	5,370.74	4,069.26
River des Eaux Mortes	554.74	1 125′ deck truss span	"	279,000	5.12	19,000	52.50	15,282.30	17,106.08
River du Milieu	556.74	2 towers 60′ span, 5 towers 40′ span, 5 40′, 6 60′, 3 75′, 2 90′ dk. pl. gr. spans; 1 225′ dk. truss span	"	3,006,000	4.93	170,000	52.50	157,120.80	103,099.69
1st Crossing Brochet river	558.74	1 60′ dk. pl. gr. span	"	58,500	4.44	10,300	52.50	3,138.15	1,494.62
2nd Crossing Brochet river	561.24	1 55′ thro. pl. gr. span	"	72,000	4.44	9,700	52.50	3,706.05	2,144.57
3rd Crossing Brochet river	561.74	1 55′ thro. pl. gr. span	"	72,000	4.44	9,700	52.50	3,706.05	2,177.33
4th Crossing Brochet river	568.24	1 33′ thro. pl. gr. span	"	33,000	4.44	7,000	52.50	1,832.70	901.45
5th Crossing Brochet river	599.34	1 36′ 10″ o. to o. thro. pl. gr. span	"	64,800	4.44	7,200	52.50	3,255.12	1,641.84
Creek à Beauce	604.74	1 40′ dk. pl. gr. span	"	32,800	4.44	7,800	52.50	1,865.82	878.39
Over Crossing Q.& L. St. J. Ry.	607.99	1 76′ o. to o. thro. pl. gr. span	"	130,800	4.84	12,100	52.50	6,965.97	3,234.60
Little Bostonnais River	609.24	2 60′ and 1 100′ dk. pl. gr. spans	"	287,400	4.84	35,400	52.50	15,668.66	8,348.05
Big Bostonnais River	614.44	4 90′ dk. pl. gr. spans	"	509,000	4.84	52,000	52.50	27,365.60	24,283.67
Croche River	617.44	2 90′ skewed thro. pl. gr. spans; 2 90′ skewed thro. pl. gr. spans, skewed at one end only	"	712,000	4.84	47,400	52.50	36,949.30	28,865.40
St. Maurice River	618.34	6 140′ thro. truss spans	"	1,860,000	4.98	109,700	52.50	96,387.25	90,355.04
River au Lait	618.64	1 77′ thro. pl. gr. span	"	119,000	4.84	12,400	52.50	6,410.60	5,759.81
District "F."—									
1st Crossing Edith Creek	1,587.54	1 24′ 4″ o. to o. dk. pl. gr. span	Can. Fdy. Co.	13,500	5.07	5,700	48.00	958.05	
2nd Crossing Edith Creek	1,587.94	1 24′ 4″ o. to o. dk. pl. gr. span	"	13,500	5.07	5,700	48.00	958.05	
Wabigoon River	1,626.54	2 40′ and 1 93′ o. to o. dk. pl. gr. spans	Can. Br. Co.	200,000	5.70	27,000	50.00	12,750.00	4,933.76
Creek Crossing	1,662.54	1 20′ 4″ o. to o. thro. pl. gr. span	Can. Fdy. Co.	22,000	4.90	4,800	48.00	1,308.40	
Creek Crossing	1,672.79	1 20′ 4″ o. to o. thro. pl. gr. span	"	22,000	4.90	4,800	48.00	1,308.40	
Macfarlane River	1,685.01	1 100′ dk. pl. gr. span	"	160,000	4.70	16,300	48.00	8,302.40	2,331.42
Winnipeg River	1,690.01	1 100′ dk. pl. gr. span	Can. Br. Co.	175,000	5.70	59,900	50.00	95,770.00	43,626.07
		1 300′ thro. truss span		1,200,000	6.90				
Creek Crossing	1,713.76	1 20′ 4″ thro. pl. gr. span	Can. Fdy. Co.	22,000	4.90	4,800	48.00	1,308.40	
Over Crossing C.P.R.	1,736.61	2 50′ dk. pl. gr. spans, 1 78′ thro. pl. gr. span	Can. Br. Co.	239,400	5.70	30,000	50.00	15,145.80	14,350.03
Whitemouth River	1,749.27	2 90′ dk. pl. gr. spans	"	248,000	5.70	30,200	50.00	15,646.00	14,584.62
Brokenhead R., E. Br.	1,767.40	1 90′ thro. pl. gr. span	"	190,000	5.70	18,000	50.00	11,730.00	10,547.52
Brokenhead R., W. Br.	1,774.00	1 60′ thro. pl. gr. span	"	100,000	5.70	13,200	50.00	6,360.00	6,077.11

STATEMENT OF EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

1908	Pay Rolls	Accounts Payable	Contracts
April	11,726.09	3,787.53	.....
May	76,699.14	95,295.04	1,166,183.11
June	94,148.02	113,714.06	1,615,648.98
July	100,071.27	97,525.11	2,074,691.38
August	106,907.65	100,491.77	2,785,805.20
September	110,372.31	150,499.50	2,057,072.89
October	108,136.05	126,433.03	2,478,068.60
November	113,238.28	186,706.95	2,064,700.08
December	109,957.62	1,279,145.98	1,666,133.58
1909.			
January	104,001.48	105,866.02	1,291,584.52
February	96,136.38	93,565.83	767,691.75
March	101,919.89	84,094.74	1,830,367.48
April	82,109.34	190,518.92	1,332,009.79
	$1,215,423.52	$2,627,644.48	$21,129,957.36

Cheques issued for Pay-Rolls	$ 1,215,423.52
Cheques issued for Accounts Payable	2,627,644.48
Cheques issued for Contracts	21,129,957.36
Total	$24,973,025.36
Less amount deposited to the credit of the Receiver General	80,252.38
	$24,892,772.98

D. HOCTOR,
Chief Acct.

STATEMENT OF EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

SUMMARY.

Detailed statements attached.

Headquarters.				
Ottawa	Page 1	$ 207,944.51		
				207,944.51
Location.				
District "A"	" 2	11,315.56		
" "B"	" 2	19,138.46		
" "C"	" 7	39,807.39		
" "D"	" 2	24,224.06		
" "E"	" 3	5,665.53		
" "F"	" 3	20,325.74		
				120,476.74
Transport Service.				
District "A"				
" "B"	Page 4	10,804.12		
" "C"	" 4	49,844.98		
" "D"	" 4	51,962.03		
" "E"	" 9	14,606.60		
" "F"	" 3	16,583.44		
				143,801.17
Construction.				
District "A"	Page 5	5,160,360.59		
" "B"	" 6	9,279,511.96		
" "C"	" 7	32,994.54		
"D"	" 8	1,108,331.47		
"E"	" 9	197,871.60		
"F"	" 10	8,641,480.40		
				24,420,550.56
Total expenditure				$24,892,772.98

D. HOCTOR,
Chief Acct.

Expenditure for the Year Ended 31st March, 1909.

Headquarters.

Commissioners' Department	$ 31,666.67	
Accounting Department	16,368.20	
Engineering Department	51,852.17	
Purchasing Department	10,701.30	
Supplies	5,900.87	
Furniture and Fixtures	1,592.43	
Freight and Express	230.92	
Telegraph and Telephone	2,868.53	
Rent	11,896.67	
Insurance—Fire and Fidelity	7,401.78	
Travelling Expenses	4,754.40	
Advances	21,465.68	
General Expenses	50,387.18	
Legal Expenses	5,535.42	
Stock		14,677.71
	$222,622.22	14,677.71
Less Credit	14,677.71	
	$207,944.51	

Expenditure for the Year Ended 31st March, 1909.

Location—District "A."

Engineering	$8,974.27	
Supplies	295.84	
General Expenses	332.75	
Freight and Express	547.26	
Camp Outfit	176.86	
Furniture	988.58	
		$11,315.56

Location—District "B."

Engineering	$16,722.95	
Supplies	1,298.82	
General Expenses	86.88	
Freight and Express	771.90	
Camp Outfit	214.51	
Medical Service, &c.	43.40	
		$19,138.46

Location—District "D."

Engineering	$20,193.81	
Supplies	343.55	
General Expenses	1,494.56	
Freight and Express	671.94	
Camp Outfit	942.05	
Medical Service, &c.	578.15	
		$24,224.06

EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

Location—District "E."

Engineering	$ 5,541.60	
Supplies	32.63	
General Expenses	30.50	
Freight and Express	60.80	
		$ 5,665.53

Location—District "F."

Engineering	$15,287.90	
Supplies	3,030.52	
General Express	246.20	
Freight and Expense	1,593.21	
Camp Outfit	167.91	
		$20,325.74

Transport—District "F."

Pay Rolls	$ 7,372.15	
Supplies	5,875.08	
General Expenses	791.84	
Travelling Expenses	606.60	
Camp Outfit	232.30	
Freight and Express	1,682.97	
Medical Service, &c.	22.50	
		$16,583.44

EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

Transport Service—District "B."

Pay Rolls	$ 8,174.20	
General Expenses	233.66	
Travelling Expenses	440.39	
Freight and Express	1,631.84	
Camp Outfit	324.03	
		$10,804.12

Transport Service—District "C."

Pay Rolls	$28,119.13	
Supplies	3,340.66	
General Expenses	1,799.68	
Travelling Expenses	2,250.66	
Camp Outfit	1,670.33	
Freight and Express	12,333.42	
Medical Service, &c.	331.10	
		$49,844.98

Transport Service—District "D."

Pay Rolls	$19,878.22	
Supplies	16,200.51	
General Expenses	4,956.15	
Travelling Expenses	1,127.63	
Freight and Express	8,193.79	
Camp Outfit	1,588.48	
Medical Service, &c.	17.25	
		$51,962.03

EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

Construction—District "A."

Instruments	$ 3,090.74
Supplies	40,303.12
Engineering	191,011.93
Camp Outfit	3,730.71
General Expenses	60,859.19
Freight and Express	3,252.43
Medical Service	449.43
Right of Way and Station Grounds	126,843.63
Furniture	1,019.86
Grading	2,977,437.51
Clearing	90,278.14
Grubbing	41,817.67
Bridges, Trestles and Culverts	1,354,696.05
Ties	206,121.51
Rails	251,665.35
Crossings, Cattle-Guards and Signs	448.20
Track Fastenings	86,053.34
Track Laying and Surfacing	20,374.51
Frogs and Switches	5,293.48
Interlocking or Signal Apparatus	138.09
Fencing Right of Way	7,836.88
Telegraph Lines	13,893.53
Legal Expenses	853.20
Ballast and Ballasting	42,903.90
Water Stations	2,066.00
Miscellaneous Structures	133.96
	$5,532,572.36
Less Contract Reserve	372,211.77
	$5,160,360.59

EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1909.

Construction—District "B."	
Supplies	$ 59,980.99
Engineering	261,952.87
Camp Outfit	7,908.71
General Expenses	51,056.11
Freight and Express	7,062.07
Right of Way and Station Grounds	267,196.07
Medical Fees	490.25
Grading	5,690,608.77
Clearing	71,631.44
Grubbing	28,553.67
Bridges, Trestles and Culverts	1,891,565.08
Furniture	5,539.38
Rails	564,454.78
Track Fastenings	102,647.33
Frogs and Switches	11,069.84
Ties	217,882.46
Track Laying and Surfacing	39,211.00
Fencing Right of Way	56,000.20
Crossings, Cattle-Guards and Signs	9,870.05
Tunnels	16,560.00
Telegraph Line	6,975.00
Interlocking or Signal Apparatus	14,600.00
Ballast and Ballasting	52,212.80
Water Stations	10,805.09
	$9,445,833.96
Less Contract Reserve	166,322.00
	$9,279,511.96

EXPENDITURE FOR THE YEAR ENDING 31ST MARCH, 1909.

Location—District "C."	
Instruments	$ 118.85
Supplies	342.24
Engineering	33,283.98
Camp Outfit	2,882.38
General Expenses	2,168.20
Freight and Express	407.54
Medical Fees, &c.	597.95
Furniture	6.25
	$39,807.39
Construction—District "C."	
Engineering	$ 8,722.99
Supplies	3,291.95
General Expenses	1,629.00
Freight and Express	410.91
Camp Outfit	214.54
Medical Service	160.00
Bridges, Trestles and Culverts	314.95
Grading	16,098.00
Clearing	4,180.00
	35,022.34
Less Contract Reserve	2,027.80
	$32,994.54

Expenditure for the Year Ended 31st March, 1909.

Construction—District "D."	
Instruments	$ 1,525.24
Supplies	21,317.52
Engineering	85,914.28
Camp Outfit	7,654.35
General Expenses	27,221.05
Freight and Express	3,243.23
Medical Fees, &c.	1,219.41
Furniture	299.51
Right of Way and Station Grounds	660.00
Clearing	79,510.05
Bridges, Trestles and Culverts	115,279.75
Rails	335,977.72
Grading	346,336.03
Grubbing	24,499.50
Track Fastenings	57,107.13
Ties	58,779.33
Yards and Terminals	4,167.21
	$1,170,711.31
Less Contract Reserve	62,379.84
	$1,108,331.47

Expenditure for the Year Ending 31st March, 1909.

Construction—District "E."	
Supplies	$. 3,480.35
Engineering	23,261.16
Camp Outfit	300.34
General Expenses	8,764.92
Freight and Express	1,849.41
Ties	1,413.85
Furniture	158.75
Frogs and Switches	1,686.02
Clearing	45,530.40
Grading	125,214.62
Grubbing	1,371.81
Right of Way and Station Grounds	2.00
Bridges, Trestles and Culverts	2,356.93
	215,470.56
Less Contract Reserve	17,598.96
	$197,871.60
Transport Service—District "E."	
Pay Rolls	$12,441.11
Supplies	670.28
General Expenses	337.25
Travelling Expenses	331.40
Freight and Express	732.48
Camp Outfit	94.08
	$14,606.60

Expenditure for the Year Ended 31st March, 1909

Construction—District "F."		
Instruments	$	410.75
Supplies		42,263.88
Engineering		197,135.74
Right of Way and Station Grounds		27,253.18
General Expenses		102,303.49
Freight and Express		6,033.08
Camp Outfit		3,454.92
Medical Fees, &c.		213.50
Grading		6,955,683.80
Clearing		95,174.33
Grubbing		16,499.07
Bridges, Trestles and Culverts		652,529.66
Legal Expenses		35.36
Rails		272,493.98
Track Fastenings		47,367.75
Ties		114,446.77
Furniture		550.72
Track Laying and Surfacing		38,403.32
Frogs and Switches		20,875.78
Tunnels		120,146.25
Ballast and Ballasting		148,991.13
Fencing Right of Way		18,873.02
Crossings, Cattle-guards and Signs		176.00
Telegraph Line		17,255.77
Water Stations		23,867.89
Shops, Roundhouses and Turntables		17,098.20
Yards and Terminal		125.00
		8,939,662.34
Less Contract Reserve		298,181.94
		$8,641,480.40

Statement of Liabilities on March 31st, 1909.

Ten per cent. reserved on contracts:—			
District "A"	$422,523.17		
" "B"	688,891.36		
" "C"	2,027.80		
" "D"	64,303.33		
" "E"	17,598.96		
" "F"	692,930.09		
		1,888,274.71	
Outstanding Time Checks			1,839.17
Wages advanced to employees, collected from pay-rolls, not yet claimed by officers making such advances			105.00

Contingent Liabilities.

Unclaimed cheques deposited to credit of the Receiver General, viz.:—			
For year 1904–05	$170.35		
For year 1905–06	168.85		
For year 1906–07	2.10		
For year 1907–08	2.05		
			343.35
			$1,890,562.23

STATEMENT OF THE TOTAL EXPENDITURE FOR THE WORK DONE UNDER THIS COMMISSION UP TO THE 31ST MARCH, 1909.

Expenditure from September, 1904, to 30th June, 1905		$ 778,363.63
Expenditure for the year ended 30th June, 1906, including the amount paid by the Finance Department to the Grand Trunk Pacific Railway Company for the surveys east of Winnipeg taken over by the Commissioners, viz.: $352,191.73		1,831,263.50
Expenditure for the nine months ended 31st March, 1907		5,537,867.50
Expenditure for the year ended 31st March, 1908		18,910,449.41
Expenditure for the year ended 31st March, 1909		24,892,772.98
Total expenditure to 31st March, 1909		$51,950,717.02

D. HOCTOR,
Chief Acct.

OTTAWA, July 15th, 1909.

To the Commissioners of the Transcontinental Railway.

Gentlemen:—I have the honour to submit the following statement of purchases made in the different provinces of Canada, and also in Great Britain and the United States, during the fiscal year ending March 31st, 1909:—

Prince Edward Island	$ 394.90
Province of Nova Scotia	1,854.61
Province of New Brunswick	40,267.14
Province of Quebec	188,023.04
Province of Ontario	135,235.00
Province of Manitoba	28,194.47
Province of Saskatchewan	237.36
Province of Alberta	965.04
Province of British Columbia	1,013.45
United States	5,558.13
Great Britain	5,365.57
	$407,108.71

A. L. OGILVIE,
General Purchasing Agent.

RETURN

(42a.)

To an Order of the House of Commons, dated the 16th November, 1909, asking for a copy of all reports, letters, communications and documents touching or relating to the resignation of Hugh D. Lumsden from his position as Chief Engineer of the National Transcontinental Railway, including a copy of all letters, communications or reports of the said Hugh D. Lumsden to the Prime Minister, touching or relating to his resignation, or to the affairs of the National Transcontinental Railway.

CHAS. MURPHY,
Secretary of State.

COPY OF CORRESPONDENCE IN THE ARBITRATION PROCEEDINGS AND IN RECLASSIFICATION.

Classification of Material, District 'B.'

MONTREAL, QUE., October 7, 1907.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—At the request of District Engineer Armstrong, he was furnished recently with a statement of classification for the heavier work on the above mentioned section which were, when given in detail, so different from his expectations that he requested the writer to visit the work.

During the past week we passed over portions of the work from the Batiscan river west for fifteen or twenty miles, and later, from miles 115 to 132.

With reference to the former portion, the classification was given in distances of from 3 to 5 miles and, as we did not have total quantities of graduation, could not judge with reference to any particular cutting, although percentages for entire distanaces seemed excessively heavy in both loose and solid rock.

With the latter portion we had detailed percentages for each cut and were greatly surprised at the allowances made for solid and loose rock. In nearly every case, where the cuttings was not entirely all ledge, the estimate given for solid rock is double, or more than double, what it should be. In fact, the specifications had been entirely ignored and an excessive allowance made, not by reason of any error in judgment but, as I understand, by special instructions from the assistant district engineer.

Let me give you some illustrations:

Take the cutting from stations 5818 to 5826, estimated 71 per cent solid rock and 29 per cent loose rock. Slopes taken out 1½ to 1. Very little ledge in this cut. Some large boulders but a very large percentage is common excavation.

Station 5842 to 5860. Classified 94 per cent solid rock, 6 per cent loose rock. Slopes taken out 1½ to 1. Solid rock over-classified at least 100 per cent.

Station 5866 to 5875. Estimated 80 per cent solid rock, 20 per cent loose rock. No rock in place in this cut. Many large boulders but a large amount of earth.

Station 5882 to 5901. Estimated 78 per cent solid rock, 22 per cent loose rock. A large amount of this cut wasted with slip scrapers and ploughing being done with two horses. There are hundreds of yards of earth here without a stone, large or small.

Station 6030 to 6046. Estimated 40 per cent solid rock, 10 per cent loose rock. This is the large sand cut west of O'Brien's camp. Of the 95,000 yards moved to August 31 in this cut at least 80,000 yards were pure sand.

Station 6071 to 6078. Estimated 99 per cent solid rock, 1 per cent loose rock. Very little solid rock in place. Slopes taken out 1½ to 1.

West of the St. Maurice River.

Station 6391 to 6394. Estimated 46 per cent solid rock, 33 per cent loose rock. Sand cut with few boulders and possibly 1,500 yards ledge in bottom of cut not yet taken out.

Station 6493 to 6504. Estimated 20 per cent solid rock, 49 per cent loose rock. No evidence of any ledge and very large boulders. Nearly all sand.

Stations 6506 to 6512. Estimated 16 per cent solid rock, 44 per cent loose rock. This is purely a sand cut, with very few boulders. Upper slope nearly 100 feet high, material wasted into river. Certainly not 10 per cent of this should be classified.

Station 6522 to 6548. Estimated 26 per cent solid rock, 49 per cent loose rock. This is borrowed material from the side. Very little solid rock shown except what was used for blind drains but some large boulders not placed in embankment.

On account of heavy rains we were not able to go west of station 6600, but we understand that classification is made about as noted above.

In every case where cuttings are not entirely in ledge we find the material over-classified very largely. Mr. Armstrong has been able to visit this work at different times, perhaps quite as often as the Assistant District Engineer. His estimates and my own are not very different as to the amount of classified material and until he received detailed quantities he had no intimation that such heavy classification had been given. In many cases, particularly in sand and gravel cuts, he had supposed that no classification would be given, except perhaps for a few boulders as loose rock.

I am informed also that on the work east of the St. Lawrence river, heavy classification is being made in borrowed material where ploughing is done with one team and material moved in slip scrappers.

As before stated, these over-classifications are not made through error in judgment nor upon the decision of the Resident or Division Engineers, who are fully acquainted with the character of the work, but by arbitrary orders from their superior. To such classification as mentioned above, increasing the cost of the work to such an alarming extent, we most seriously protest and respectfully request that either yourself or the Assistant Chief Engineer visit the work and pass judgment upon the classification as made. Please note that the percentages given above indicate the work done to August 31. We are not advised what the September estimate will be.

H. A. WOODS.

MONTREAL, P.Q., October 8, 1907.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—Referring to my letter of the 7th inst., *re* classification of material on section B,' please correct error in item: ' Station 5842 to 5860. Classified 90 per cent

solid rock, 6 per cent loose rock. Slopes taken out 1½ to 1. Solid rock over-classified at least 100 per cent,' instead of loose rock as mentioned in letter.

Kindly make correction in letter.

H. A. WOODS,
Assistant Chief Engineer.

MONTREAL, P.Q., November 4, 1907.

MR. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—Referring to my letter of the 1st instant, replying to yours of October 29th *re* classification, section 'B,' and the advisability of our putting a money value on the difference of estimates returned June to September inclusive, I have to say that Mr. Armstrong was here on Saturday, and we went over estimates on the O'Brien and Martin contract, as far as possible.

We find the estimates for solid rock on the portions of the work, sections 5763 to 6140, was 58 per cent of total quantities in the month of June, and for the September estimate a trifle less than 73 per cent. I take it this is where the claim of 14 per cent difference was made. However, this increase in allowance for solid rock is not merely for the work performed from June to September, but includes the entire quantities since the work was opened. If you will glance over the percentages of solid rock allowed from August, 1906, you will see what a remarkable showing is made on this piece of work and why we are so strenuously objecting to the classification. On this account we are not able, at the present time, to put a value on the actual work performed.

We desire it understood that, with the classification made under the interpretation put upon clause 34 in the specification by District Engineer Doucet and his assistants, we shall be obliged to object to the same for the entire district.

H. A. WOODS,
Assistant Chief Engineer.

January 10, 1908.

CHAS. M. HAYS, Esq.,
President Grand Trunk Pacific Railway Company,
Montreal, Que.

DEAR MR. HAYS,—The inclosed document, which has been prepared after discussion which took place yesterday, is now ready for your signature. I succeeded in having it approved by our board, and if you will sign the two copies herewith attached and return same, I shall in turn do likewise and forward one to you for file. At the same time I inclose a copy of this draft of agreement, with the changes made in lead pencil by Mr. Bigger.

Hoping this will dispose of the matter,

I remain,

S. N. PARENT.
10th Jan., 1908.

Memorandum of Agreement to be Drawn Up Between the Commissioners of the Transcontinental Railway and the Grand Trunk Pacific Railway Company.

Monthly estimates for contractors shall be submitted promptly from time to time by the Chief Engineer of the Commissioners to the Company's Assistant Chief Engineer at Montreal for approval. If he has any objection to such estimates he shall promptly file the same with the Chief Engineer of the Commissioners, and any

objections from time to time filed shall thereupon be considered, and, if possible, determined by the said engineers, and in case of their failure to agree, may then or at any time before or at the time of the final payment, at the option of either party, be considered and determined by arbitration as provided in the agreement of the 29th July, 1903, but in no case shall the payment of monthly estimates be delayed except with the consent of the Commissioners.

In case the Chief Engineer of the Commissioners and the Assistant Chief Engineer of the Company disagree as to the final payment, the same shall be withheld until the matter is determined by arbitration, as provided in the said agreement of 29th July, 1903.

Personal.

Grand Trunk Pacific Railway.

January 14, 1908.

Hon. S. N. PARENT,
Chairman, Transcontinental Railway Commissioners,
Ottawa, Ont.

DEAR MR. PARENT,—I have yours of January 10th, with memo. in duplicate as to contractors' monthly estimates, etc., for which I am obliged. I have, as requested, initialed both copies, and herewith return for the approval of the Commissioners, which kindly initial and return for my files.

CHAS. M. HAYES.

15th January, 1908.

CHAS. M. HAYS, Esq.,
President,
Grand Trunk Pacific Railway Company,
Montreal, P.Q.

DEAR MR. HAYS,—Your letter of yesterday enclosing memo. in duplicate relative to contractors' monthly estimates, &c., agreed upon and bearing your initials, has come to hand. After both copies were initialed by the Chief Engineer and myself, I now return one of them to you, as desired, for file.

S. N. PARENT.

MONTREAL, P.Q., February 14, 1908.

H. D. LUMSDEN, Esq.,
Chief Engineer, National Transcontinental Railway,
Ottawa, Ont.

RE CLASSIFICATION.

DEAR SIR,—Referring to correspondence and conversation on this subject, I understand that you have recently issued instructions to your district engineers relating to same. Will you be good enough to send me a copy of these instructions, so that my assistants may know just what to expect with regard to classification while going over the work.

From reports received from our district engineers on districts 'B' and 'F' we understand that, in their judgment, the work in places is largely over-classified, particularly in borrowed material, where no ledge exists. Would it not also be possible that resident engineers, in returning estimates, should show in cuttings the amount of material found in ledge, also the amount of material classified as solid rock and boulders and what, I understand, you term 'assembled rock.' If this could be done I think it would be of advantage not only to us, but would give you information in your office, which would be of great use to you in questionsarising between this company and the commissioners.

H. A. WOODS.
Assistant Chief Engineer.

SESSIONAL PAPER No. 42a

February 20, 1908.

Mr. Hugh D. Lumsden,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

Dear Sir,—I beg to acknowledge receipt of your favour of the 17th instant, file 7787, giving your interpretation of clause 34, 35 and 36 of our specifications, with blue prints, and explanation of same, also copy of your instructions to your engineers.

We are quite satisfied with your interpretation of the specifications and with your instructions, which are explicit. I do not know the date of those insutruction or when they are supposed to have become effective, but, from reports from my assistants at Winnipeg and Quebec, there does not seem to have been any change in classification of work previously reported, the percentage of classified material being steadily increased.

We are satisfied that on some parts of the line the work previously estimated was not classified according to your recent instructions, being overestimated in both loose and solid rock. The attention of your District Engineers has been called to this fact, but apparently without effect. If your instructions were effective when the January estimates were made we certainly will have to object to the classification as rendered on certain parts of the work.

H. A. WOODS,
Assistant Chief Engineer.

Montreal, Que., March 24, 1908.

Mr. Hugh D. Lumsden,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

Dear Sir,—I desire to acknowledge receipt of your favour of the 20th instant, together with contractors' progress estimates for the month of February, as follows:—

District 'B.'—Messrs. M. P. & J. T. Davis, mile 0 to 50, west of the St. Lawrence river.
Mesrs. M. P. & J. T. Davis, mile 0 to 150, easterly from the Quebec bridge.
Mesrs. Macdonell & O'Brien, mile 50 to 150, westerly from the Quebec bridge.
District 'F'—Mr. J. D. McArthur, mile 0 to 245.
Completing return for February.

In examining these estimates I find no apparent change in classification since your instructions to district engineers of January 28, 1908. On the contrary the percentages of classified material seem to be constantly increasing and are even higher than when we made our objections in September last.

I am quite aware that during the winter season it is natural that classified material should run higher than at other times, as little earth work is opened, but I had hoped to see a reduction in classified material so reported prior to January last.

I have before me a detailed sheet showing classification as made on District 'B,' and am surprised to find material classified as solid rock which, if I am correctly informed, under your instructions could only be classified as loose rock. I also find very large quantities returned both as loose and solid rock in borrowed embankment. On the work east of the Quebec bridge a large amount was done with teams, side borowed material, and yet the entire contract for the 150 miles only shows 24% of of the work done as common excavation. It appears also that the item 'Assembled Rock,' No. 5, in your instructions, is made to cover most material where explosives are used in handling.

In excavations for foundations, where hard material is found, under this item it is classified as solid rock, giving the contractor three times the usual price for that material. Our district engineers are not satisfied with the classification as made. On District 'F' the objection lies in the first and second divisions.

It is impossible at this time to go over the work with a view of examining classification, but, from reports from my assistants, I certainly must object to the classification as rendered being considered final, and request that as soon as the season will permit, you accompany me over at least a part of the line, that I may have your views in regard to this most important matter of classification.

H. A. WOODS,
Assistant Chief Engineer.

Overbreak, Rock Cuttings, District 'F.'

MONTREAL, QUE., March 30, 1908.

HUGH D. LUMSDEN, Esq.,
Chief Engineer, Eastern Division,
National Transcontinental Ry.,
Ottawa, Ont.

DEAR SIR,—I have before me a statement showing quantities of overbreak on this district for the months of January and February of the present year, showing percentage of overbreak for January to be 16·57 and February 14·65, and that the total quantities estimated in cuttings outside slope stakes to February 28 is 409,141 cubic yards. Of this amount some 93,000 cubic yards has been used in embankments where rock borrow otherwise would have been rendered necessary and about 45,000 cubic yards where common excavation might have been borrowed. This leaves a very large percentage of actual waste, much more than seems at all necessary.

While we well know that it is not possible for contractors to work with exact slope line in all cases, we are satisfied that little, if any, attention has been paid, in some instances, to the amount of overbreak by sub-contractors. It would seem that where sub-contractors use explosives indiscriminately and without regard to the amount of material moved outside of slope stakes, they should not be paid for this overbreak.

I call your attention to this matter at this time as yardage is increasing from month to month and will continue to do so unless some measures are taken by yourself to keep this matter within reasonable limits.

H. A. WOODS,
Ass't. Chief Engineer.

MONTREAL, P.Q., April 21, 1908.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I desire to acknowledge receipt of your favour of the 17th inst., together with copies of progress estimates, Eastern Division, for the month of March, as mentioned therein.

There are few exceptions to be taken to these estimates, so far as I am advised, except to the classified material, which is constantly increasing, and the very large amount of overbreak in solid rock cuttings also increasing and representing in all a very large amount.

With reference to classification, I have to say that, in compliance with your request, I have directed my assistants to give me the location by stations and mileage of points where, in their opinion, the classification, as rendered, is higher than it

should be under your interpretation of the specifications and your instructions to your assistants dated January 30 last. I am in receipt of a letter from District Engineer Mann giving a list of the different divisions, District 'F,' where objections lie as to classification as rendered, copy of which I enclose herewith.

From the list you will note that he takes exception to the classification returned in nearly all of Division No. 5, except, perhaps, some ten or twelve cuttings, probably wholly of solid rock. On Division No. 6, aside from solid rock cuttings, the objections are nearly as great as on Division No. 5. You will further note from the enclosed list that the larger proportion of over-classification is on the part of the line included on Divisions Nos. 5 and 6.

After his inspection late last fall, District Engineer Mann seemed very well satisfied with the classification on Divisions 7, 8 and 9, but he now advises that he thinks that classification is increasing on that part of the line and is now much too high. In his letter of transmittal of this list, District Engineer Mann writes as follows:—

'. . . . The classification varies greatly over this district. While in some cases the amount of loose and solid rock is not very greatly in excess, in others, where large amounts of the high priced material have been allowed, and only a small amount of common excavation, the proportion should be reversed. There is nothing in the estimates to show what is solid ledge. I have been asking for this information for several months, in fact since September last, but have not yet received it. Will turn the question to you now and ask that I be furnished this information as soon as possible, so that I can have it on my next inspection trip over the line.'

From the inclosed list you will note that Mr. Mann makes objections not only to classification in cuttings, but also to borrowed material. On mile 25, Stations 1267 to 1280, there appears in this estimate a considerable amount of loose rock for the first time. Of the 25,000 cubic yards returned, 44 per cent is classified. Both Mr. Mann and Mr. Heaman claim that no classification should be given in this material.

We feel that this question of over-classification must be settled in the near future. Many of the sub-contractors will soon be completing their work and undoubtedly will receive final payment for same, and if they are paid upon estimates as returned at present, general contractors will naturally object to any change in their estimates.

While I have no list like the inclosed from district 'B,' reports from my assistant indicate there that east of the river his objections lie to the classification generally as returned. A very large amount of borrowed material through farming country has been returned as loose rock. Of the entire work done to date on this section, 77·6 per cent is classified material, nearly evenly divided between loose and solid rock.

You will recall that in September last we made great objections to the classification as returned west of the St. Lawrence river. Later, you visited a small section of the work, and I think have been in a position to decide upon at least that portion of the work for several months, and still no action has been taken to change estimates as then made or as since returned. We ask now that at the earliest possible moment you will visit each of these sections and make a decision on these points, that we may know whether further action will be taken.

H. A. WOODS,
Assistant Chief Engineer.

LIST OF CUTTINGS, BORROWS, ETC., ON DISTRICT 'F,' IN WHICH THE CLASSIFICATION IS OBJECTED TO AS BEING TOO HIGH.

Division No. 5.

Station	262	to station	....,	mile	5—		
"	301	"	311,	"	6—		
"	316	"	....,	"	6—		
"	331	"	340	"	7—		
"	353	"	366,	"	7—		
"	375	"	382,	"	8—		
"	497	"	506,	"	10—		
"	513	"	519,	"	10—		
"	528	"	547,	"	11—		
"	553	"	566,	"	11—		
"	571	"	577,	"	11—		
"	612	"	619,	"	12—		
"	633	"	639	"	12—		
"	651	"	....,	"	13—		
"	653	"	657,	"	13—		
"	659	"	667,	"	13—		
"	670,	"	675,	"	13—Ditch.		
"	674	"	681,	"	13—		
"	711	"	716,	"	14—		
"	727	"	737,	"	14—		
"	747	"	761,	"	15—		
"	767	"	771,	"	15—		
"	783	"	800,	"	15—		
"	820	"	826,	"	16—		
"	820	"	826,	"	16—		
"	820	"	860,	"	16 4/17—Ditches.		
"	835	"	844,	"	16—		
"	859	"	873,	"	17—		
"	889	"	897,	"	17—		
"	912	"	922,	"	17—		
"	886	"	890,	"	17—Ditch.		
"	929	"	937,	"	18—Cut and ditches		
"	941	"	950,	"	18—		
"	955	"	962,	"	19—		
"	966	"	984,	"	19—		
"	986	"	992,	"	19—		
"	1033	"	1042,	"	20—		
"	1047	"	1054,	"	20—		
"	1060	"	1063	"	21—		
"	1062	"	1068,	"	21—		
"	1075	"	1079,	"	21—		
"	1095	"	1100,	"	21—		
"	1108	"	1123,	"	22—		
"	1186	"	1105,	"	23—		
"	1214	"	1227,	"	24—		
"	1220	"	....,	"	24—Ditch.		
"	1254	"	1267,	"	24—Borrows.		
"	1282	"	1290,	"	25—		
"	1308	"	1313,	"	25—		
"	1313	"	1356,	"	26—Ditches.		
"	1375	"	1383,	"	27—Riprap not allowable. here.		
Station	1383	to station	1398,	mile	27—		
"	1429	"	1434,	"	28—		
"	1436	"	1453,	"	28—		
"	1475	"	1391,	"	28 20/29—		
"	1489	"	1508,	"	29—Ditches.		
Station	1513	to station	1531,	mile	29—		
"	1531	"	1546,	"	30—Cuttings and ditches should be separated.		
"	1548	"	1553,	"	30—Includes ditches as often as occurs.		
"	1572	"	1584,	"	30—		
"	1600	"	1614,	"	31—Borrow ditches.		
"	1622	"	1636,	"	31— "		
"	1655	"	1658,	"	32—		
"	1674	"	1679,	"	32—		
"	1683	"	1689,	"	32—		
"	1703	"	1721,	"	33—Borrow ditches.		
"	1726	"	1740,	"	33 "		
"	1751	"	1762,	"	34—		
"	1765	"	1795,	"	34—Borrow.		
"	1801	"	1810,	"	35—		
"	1816	"	1836,	"	35—		
"	1873	"	1899,	"	36		
"	1913	"	1920,	"	37—Borrow ditches.		
"	1920	"	1929,	"	37— "		
"	1927	"	....	"	37—Drainage ditch.		
"	1953	"	1960,	"	37—		
"	1990	"	....	"	38—		
"	2021	"	2031,	"	39—		
"	2063	"	2070,	"	40—		
"	2064	"	2106,	"	40—		
"	2081	"	2087,	"	40—Stripping unnecessary.		
"	2147	"	2183,	"	42—		
"	2230	"	2242,	"	43—		
"	2257	"	2264,	"	43—		
"	2288	"	2295,	"	44—		
"	2315	"	2319,	"	44—		
"	2319	"	2323,	"	44—		
"	2323	"	2335,	"	45—		
"	2368	"	....	"	45—Culvert excavation.		
"	2371	"	2377,	"	45—		
"	2381	"	2391,	"	46—		
"	2403	"	2409,	"	46—		
"	2425	"	2436,	"	47—		
"	2443	"	3449,	"	47—		
"	2456	"	2468,	"	47—		

Division No. 6.

Station	2474	to station	2492,	mile	47—		
"	2546	"	2554,	"	49—		
"	2562	"	2570,	"	49—		
"	2619	"	2626,	"	50—		
"	2700	"	2706,	"	52—		
"	2711	"	2714,	"	52—		
"	2727	"	2734,	"	52—		
"	2756	"	2765,	"	53—		
"	2777	"	2793,	"	53—		
"	2894	"	2896,	"	55—		
Station	2994	to station	2997,	mile	57—		
"	3024	"	3026,	"	58—		
"	3067	"	3069,	"	59—		
"	3160	"	3163,	"	60—		
"	3195	"	3200,	"	61—		
"	3226	"	3229,	"	62—		
"	3236	"	3239,	"	62—		
"	3252	"	3255,	"	62—		
"	3295	"	3287,	"	63—Ditch.		
"	3322	"	3335,	"	63—		

SESSIONAL PAPER No. 42a

LIST OF CUTTINGS, BORROWS, &c., ON DISTRICT 'F' IN WHICH THE CLASSIFICATION IS OBJECTED TO AS BEING TOO HIGH.

Division No. 6.—Continued.

Station	3460	to station	3475,	mile	66—
"	3488	"	3498,	"	66—
"	3540	"	3542,	"	67—
"	3612	"	3613,	"	69—
"	3616	"	3618,	"	69—
"	3701	"	3800,	"	71 1/2—Cuts, borrows, &c.
"	3800	"	"3850,	"	73—Cpts, borrows, &c.
"	3870	"	....	"	74—Ditch.
"	3868	"	3875,	"	74—Ditches.
"	3917	"	....	"	75—Borrow.
"	3957	"	3960,	"	75—
"	3969	"	3972,	"	76—
"	3974	"	3977,	"	76—
"	3980	"	3982,	"	76—
"	3984	"	3992,	"	76—
"	3990	"	4000,	"	76—
"	4054	"	4061,	"	77—
Station	4061	to station	4070,	mile	77—
"	4075	"	4070,	"	77—
"	4107	"	4114,	"	78—
"	4117	"	....	"	78—Ditch.
"	4124	"	4128,	"	78—
"	4143	"	4153,	"	79—
"	4163	"	4179,	"	79—
"	4181	"	4183,	"	79—Ditch.
"	4190	"	4201,	"	80—
"	4213	"	4220,	"	80—
"	4235	"	4240,	"	81—
"	4264	"	4277,	"	81—
"	4383	"	4389,	"	83—
"	4478	"	4483,	"	85—
"	4485	"	4490,	"	85—
"	4491	"	4505,	"	85—
"	4559	"	4563,	"	87—
"	4664	"	4266,	"	89—
"	4686	"	4694,	"	89—

Division No. 7.

Station	2415	to station	2401,	mile	91—
"	2327	"	2312,	"	93—
"	2297	"	2312,	"	93—
"	2297	"	2292,	"	93—
"	2004	"	2011,	"	99—
"	1761	"	1767,	"	103—
"	1745	"	1760,	"	103—
"	1716	"	1732,	"	104—
"	1580	"	1593,	"	106—
"	1576	"	1578,	"	107—
"	1546	"	1559,	"	107—
"	1509	"	1524,	"	108—
"	1504	"	1507,	"	108—
"	1352	"	1360,	"	111—
"	1306E	"	1302,W	"	112—
"	1089	"	1078,	"	116—
"	1078	"	1070,	"	116—
"	1070	"	1038,	"	111 1/2 117
"	994	"	980,	"	118—
"	940	"	948,	"	119—
"	882	"	888,	"	120—
"	872	"	873,	"	120—
"	715	"	721,	"	123—
"	628	"	632,	"	125—
"	593	"	610,	"	125—
"	433	"	443,	"	128—
"	419	"	424,	"	129—
"	366	"	375,	"	130—
"	348	"	360,	"	130—
"	335	"	348,	"	130—
"	321	"	334,	"	130—
"	234	"	239,	"	132—
"	217	"	227,	"	132—
"	90	"	85,	"	135—
"	80	"	74,	"	135—
"	520	"	540,	"	137—
"	505	"	481,	"	138—
"	465	"	473,	"	138—

Division No. 8.

Station	7586	to station	7593,	mile	140—
"	7614	"	7620,	"	141—
"	7682	"	7688,	"	142—
"	7788	"	7781,	"	144—
"	7816	"	7857,	"	145—
"	8224	"	8227,	"	152—
"	8278	"	8286,	"	153—

MONTREAL, April 23, 1908.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—With further reference to our objections to classification on District 'B' and points at which we desire you to examine for purpose of inspecting, I quote from District Engineer Armstrong's letter of the 21st inst.:—

As typical classification I would mention the following cuts on the contract east of the Quebec bridge:—

Stations 7,871 to 7,878 Res. 4.
" 7,086 to 7,182 " 5.
" 6,039 to 6,051 " 7.
" 6,000 " 7.
" 3,880 to 3,890 " 10.

Almost any cut on residencies 10 or 11 will do. These examples are given, not as being the only ones, but a visit to any one of these will show the classification given generally, and whatever agreement or disagreement is arrived at on one cut will apply to probably 75% of the cuts on the whole work.

As examples of borrow with classification I may instance the following as examples: Mile 15 to Mile 23".

The above for your information.

H. A. WOODS,
Assistant Chief Engineer.

OTTAWA, April 24, 1908.

The COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

SIRS,—I beg to submit three letters received from Mr. H. A. Woods, Assistant Chief Engineer of the Grand Trunk Pacific Railway, the first dated the 21st instant, in which he takes exception to the classification on about 153 miles of District 'F,' and gives a list of 196 points at which the classification is claimed to be excessive; the second letter, dated the 23rd instant, in which he objects to the classification generally in District 'B,' east of the St. Lawrence river, and especially mentions five cuttings at various points and also refers to the classification in borrow pits between miles 15 and 23; the third letter is dated March 24, and in this he makes a general complaint as to the classification in both districts 'B' and 'F,' but gives no definite points at which these objections are raised.

As he has now taken objection in a definite form to our classification in both districts 'B' and 'F,' and as, in my opinion, these are questions which it was intended should be settled under the agreement made between you and the Grand Trunk Pacific on January 10 last, in conformity with Clauses 7 and 4, Chap. 71, 3 Ed. VII, I am writing Mr. Woods to appoint a day at as early a date as possible where we could have a conference either here or in Montreal so as to arrange dates for arbitrating the points in dispute promptly and for the appointment of the third arbitrator.

HUGH D. LUMSDEN,
Chief Engineer.

OTTAWA, April 24,, 1908.

HUGH D. LUMSDEN, Esq.,
Chief Engineer.

DEAR SIR,—I beg to advise you that the Board has approved your contemplated action, as reported by your letter of even date, with respect to the objections filed by Ass't. Chief Engineer Woods with respect to the classification in Districts 'B' and 'F.'

P. E. RYAN.

OTTAWA, May 6, 1908.

HUGH D. LUMSDEN, Esq.,
Chief Engineer.

DEAR SIR.—Referring to your letter of the 24th April ultimo, submitting copies of three letters received by you from Mr. H. A. Woods, assistant chief engineer of the Grand Trunk Pacific Railway, in which objections are made to classification in Districts 'B' and 'F,' you did not submit a copy of the list showing the 196 points in district 'F' at which the classification is claimed to be excessive. This is required to complete the record. Please send to me at once.

P. E. RYAN.

OTTAWA, May 7, 1908.

P. E. RYAN, Esq.,
Secretary.

DEAR SIR,—I beg to hand you herewith, as requested, copy of list, which accompanied Mr. Woods' letter to me of the 21st ultimo, showing 196 points where the classification is claimed to be excessive in District 'F.'

HUGH D. LUMSDEN,
Chief Engineer.

OTTAWA, May 11, 1908.

Hon. S. W. PARENT,
Chairman, Transcontinental Railway Commission,
Ottawa.

MY DEAR PARENT,—It is very desirable, in my opinion, that the Commission should at once, by formal letter, instruct Mr. Lumsden to proceed with the arbitration contemplated by section 7 of the Transcontinental agreement, and arrange for a conference with the Chief Engineer of the Grand Trunk Pacific. By so doing, the tribunal, which is to determine the correctness of the engineers' classification would be constituted, and all matters of differences would properly be before them and be dealt with and decided upon by them.

WILFRID LAURIER.

12th May, 1908.

The Rt. Hon. Sir WILFRID LAURIER,
Prime Minister.

DEAR SIR WILFRID,—In reply to your letter of yesterday, received this morning, it gives me pleasure to inform you that the Commissioners have already, on April 24 last, taken steps in the direction suggested by you. Indeed, the Chief Engineer, Mr. Lumsden, was instructed on that date to communicate with his colleague of the Grand Trunk Pacific Company for the purpose of proceeding with the arbitration provided for in the Transcontinental Act. Consequently, he advised the Chief Engineer of that company, as per agreement made between them and our commission on January 10 last, in order to agree upon the choice of the third arbitrator and then be able to start with the consideration of disputable matters coming under the jurisdiction of that tribunal.

S. N. PARENT.

MONTREAL, Que., June 19, 1908.

HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I have before me estimate of rock excavation, District 'F,' for the month ending April 30, 1908. You will recall these statements as being made showing the overbreak on each division from month to month.

It is a little surprising to find that the total over break on this district to April 30, is over 500,000 cubic yards. From the column furnished showing how some of this might have been used where rock borrow otherwise would have been required, and earth borrow, and deducting the same, I still find about 451,000 cubic yards of over break.

I have nothing to show how this overbreak is estimated. Articles 37 and 38 would indicate that a large amount of this overbreak might have been estimated as loose rock rather than solid. Can you say if this has been done? None of my reports indicate such to be the case. I think you will readily agree with me that if these cuttings are being measured month to month by actual quantities taken out, and no allowance deducted, little effort will be made by the contractors to keep overbreak within reasonable limit and in the end we shall undoubtedly be paying $1,000,000 additional for the work on this section probably not contemplated in your approximate estimates.

H. A. WOODS,
Assistant Chief Engineer.

MONTREAL, Que., June 26, 1908.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I have your letter of June 24, in answer to mine of the 19th, *re* overbreak, District 'F,' and am not surprised that you fail to see how I arrive at the amount of 451,000 cubic yards. This is purely a clerical error. What I intended to say was about 350,000, and that was only an approximate amount. From the statement as rendered I cannot make out what is intended in the claim 'actual waste in overbreak,' where there is only a very small amount named, or the column marked 'indefinite,' where the amount is very large.

I regret that this clerical error should have occurred, and I shall be glad if you will give me your version of what would be considered overbreak to April 30, on this section. In the column 'amount to date in fills where earth borrow could have been had,' should not the extra amount be the difference in price for the yardage between rock fill and earth fill? We will have an opportunity to talk more on this subject when together the coming week.

H. A. WOODS,
Assistant Chief Engineer.

MONTREAL, QUE., October 2, 1908.

HUGH D. LUMSDEN,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I have just received from District Engineer Mann estimate of rock excavation on the different divisions, District 'F,' for the month ending June 30, 1908.

This estimate is made for the purpose of showing overbreak in rock excavation, and I am surprised to see that the percentages of overbreak for June equals 21.23 per cent of the total excavation. Mr. Mann writes that in this total is included all rock whether in borrow cutting or classification of any kind. I really cannot understand how there could be any overbreak in borrowed material, and I think Mr. Mann's remarks require explanation. In any event the total yardage of overbreak to June 30 last is, as you no doubt have observed, 715,402 cu. yards. The report under consideration does not show as some of the former reports have, the amount of this overbreak that was used in embankment where solid rock borrowed otherwise would have been used, but generally speaking I think that the amount used in embankments is comparatively small.

Kindly give this matter attention and oblige,

H. A. WOODS,
Assistant Chief Engineer.

SESSIONAL PAPER No. 42a

OTTAWA, October 8, 1908.

The Commissioners of the Transcontinental Railway, Ottawa, Ont.

SIRS,—On July 22, last, I wrote to Mr. H. A. Woods, Assistant Chief Engineer of the Grand Trunk Pacific Railway stating that I could not agree with him *re* classification, and suggesting the names of the following as a third arbitrator under clauses 7 and 4 of the agreement in 3rd Ed. VII., Chap. 71.

Henry McLeon, C.E., Ottawa, Ont.
Wm. McCarthy, C.E., Winnepeg, Man.
T. E. Hillman, C.E., Hamilton, Ont.

To this I have had no definite reply, though on July 28, August 18 and September 10, I have asked for same by letter or wire, and verbally on October 5.

I am given to understand that Mr. Morse is at present in the west, but suggest if this matter is not settled immediately after his return, application be made to the Chief Justice of the Supreme Court of Canada to appoint the third arbitrator in accordance with clause 4 of the agreement above referred to, so that disputes may be settled promptly and not hold over until the contracts are completed.

HUGH D. LUMSDEN,
Chief Engineer.

OTTAWA, October 12, 1908.

HUGH D. LUMSDEN, Esq.,
Chief Engineer.

DEAR SIR,—I beg to advise you that the Board has approved the recommendation contained in your letter of the 8th instant, with respect to the appointment of the third arbitrator to adjust the differences between the engineers of the Commissioners and those of the Grand Trunk Pacific Company as to classification.

P. E. RYAN.

MONTREAL, Que., November 16, 1908.

Mr. H. D. LUMSDEN,
Chief Engineer, N. T. Railway Commission,
Ottawa.

DEAR SIR,—The differences between the Transcontinental Railway Commissioners and our company on questions arising in respect of the construction of the Eastern Division have already formed the subject of considerable correspondence between Mr. Woods and yourself, and I notice that lately the advisability of referring those questions to arbitration, under Clause 7 of our agreement with the government, has been under consideration.

I am of your opinion that, in view of the differences between us respecting the work, we had better call in a third arbitrator to determine these questions, as in the said clause provided. The gentlemen whose names you mention would no doubt capably fill the office of third arbitrator, but as I am not sufficiently acquainted with them to have any personal knowledge of their qualifications, I cannot well concur in the appointment of any one of them.

I have therefore cast about in my mind for someone sufficiently well known to each of us who might fill the position and about whose ability there could be no question.

I think when I mention the name of Mr. Collingwood Schreiber, you will agree with me that there is not in the Dominion an engineer more qualified by ability and experience to discharge the duties of third arbitrator.

Mr. Schreiber is a man of undoubted integrity and is, as you know, at the present time, and for some time past, engaged in settling with respect to the Western Division precisely similar questions as have now arisen with respect to the Eastern Division. I should say that where it is a case of the same questions and between the same parties on both divisions, Mr. Schreiber is as competent to speak upon one as the other, and no one, in my opinion, is more so.

If Mr. Schreiber should be mutually acceptable, I would suggest that we ask our lawyers to prepare a formal submission to arbitration which shall enumerate the differences to be adjusted and prescribe the mode of procedure to be followed.

In regard to these differences, the most serious is the question of classification; in addition to which, however, there are others, such as he questions of overbreak and waste, extra work, a too expensive system of construction, all of which should be included in the scope of reference. In fact, I would suggest a conference for the purpose of reviewing and collecting the various matters on which we differ, and all these should be embraced in the reference and specifically set forth in the formal submission.

As my sojourn in the East will likely be short, I shall be personally obliged if you can favour me with an early reply; although I am aware that my absence in the West has already been the cause of some delay.

B. B. KELLIHER,
Chief Engineer.

November 20, 1908.

COL. INGWOOD SCHREIBER, Esq.,
General Consulting Engineer to the Government,
Ottawa, Ont.

DEAR SIR,—In a letter from Mr. B. B. Kelliher, Chief Engineer of the Grand Pacific Railway, dated the 16th instant, he suggests your name as third arbitrator on questions arising between Mr. Kelliher and myself in respect to the construction of the Eastern Division of this railway, but before taking any further steps, you will greatly oblige by informing me, if you can find the time, and are prepared to accept such an appointment.

HUGH D. LUMSDEN,
Chief Engineer.

OTTAWA, November 21, 1908.

HUGH D. LUMSDEN, Esq.,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa.

DEAR SIR,—In reply to your communication of yesterday's date, informing me that Mr. B. B. Kelliher, Chief Engineer of the Grand Trunk Pacific Railway, had suggested my name as third arbitrator on questions arising between he and you, in respect to the construction of the Eastern Division of the National Transcontinental Railway; I may explain that not being aware of the extent and nature of the questions in dispute between you, I am unable to answer as to whether or not I can find the time to assume the position of third arbitrator, and further, in my case, I only accept duties or office such as I am requested to do by the Prime Minister, but whatever duties he assigns me, I undertake to carry out to the best of my ability.

COLLINGWOOD SCHREIBER.

SESSIONAL PAPER No. 42a

OTTAWA, January 5, 1909.

HUGH D. LUMSDEN, Esq.,
Chief Engineer.

DEAR SIR,—Will you please report to the Board on the matter of the appointment of a third arbitrator to act with yourself and the Chief Engineer of the Grand Trunk Pacific Company for the settlement of all differences between our engineers and those of the company with respect to the classification of material undr our contracts for construction. Since you last wrote the Board on October 8, it is understood you have had some correspondence in this matter, and the Commissioners will be glad to obtain your views as to the possibility of an arbitration at an early date to settle up all outstanding differences with the Grand Trunk Pacific Company relating to classification.

P. E. RYAN.

OTTAWA, January 7, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

SIRS,—In regard to the arbitration between the Grand Trunk Pacific Railway Company and ourselves, in connection with classification at various points on the line, I beg to submit the following report supplementary to my letter to you of the 8th of October, 1908.

On the 16th of November last, I received a letter from Mr. B. B. Kelliher, Chief Engineer of the Grand Trunk Pacific Railway, suggesting Mr. Collingwood Schreiber as third arbitrator, and I at once verbally communicated with Mr. Schreiber, and on the 20th wrote him, and received his reply, copies of which I attach. Since that date I have verbally communicated with him on several occasions in regard to the matter, and he is prepared to undertake it with consent of the Prime Minister, providing it will not interfere witht his duties as Engineer of the Western Division of the Grand Trunk Pacific Railway, and that it can be carried on prior to a date not later than the 15th of May next. On seeing him yesterday, he stated that he agreed with me that it would be a farce to go into this matter with the snow on the ground, but as soon as it disappeared he would be prepared to proceed, and do all possible before the above mentioned date, viz.: May 15th, and I am of the opinion that an examination of the work will be practicable on or about the 1st of April next.

I concur in the recommendation made by Mr. Kelliher in his letter to me of the 16th of November, and therefore recommend the appointment of Mr. Collingwood Schreiber as third arbitrator under clauses 7 and 4 of the agreement dated the 29th of July, 1903, and will notify Mr. Kelliher to that effect, and also that we will be prepared to proceed with the arbitration on or about the 1st of April next, or as soon as the snow is sufficiently gone.

HUGH D. LUMSDEN,
Chief Engineer.

OTTAWA, January 11, 1909.

HUGH D. LUMSDEN, Esq.,
Chief Engineer.

DEAR SIR,—I beg to advise you that your report of the 7th instant advising your concurrence in the nomination made by Mr. B. B. Kelliher, Chief Engineer of the Grand Trunk Pacific Railway, of Mr. Collingwood Schreiber as the third arbitrator to pass on the differences existing between our engineers and those of the Grand Trunk Pacific Company with respect to the work on the Eastern Division, was to-day considered by the Board and approved.

It is understood that the arbitration is to proceed without delay as soon as it is practicable to do so.

P. E. RYAN,
Secretary.

January 16, 1909.

B. B. KELLIHER, *Esq.*,
Chief Engineer, Grand Trunk Pacific Ry.,
Montreal, P.Q.

Re appointment of third arbitrator.

DEAR SIR,—Yours of the 13th instant duly received, and in reply may say that it must be understood that classification alone, or matters relating thereto, are to be taken up now, as mentioned in your assistant, Mr. Wood's letters to me of the following dates:

October 7, 1907.
October 8, 1907.
November 4, 1907.
February 14, 1908.
February 20, 1908.
March 24, 1908.
April 21, 1908.
April 23, 1908.
June 23, 1908.
July 8, 1908.
July 28, 1908.

Objections have also been made as to the amount of overbreak in cuttings in District 'F' in the following letters from Mr. Woods, which might also be looked into at the same time:

March 30, 1908.
June 19, 1908.
June 26, 1908.
October 2, 1908.

H. D. LUMSDEN.

February 1, 1909.

B. B. KELLIHER, Esq.,
Chief Engineer, G.T.P. Ry.,
Montreal, P.Q.

DEAR SIR,—I beg to suggest that, as Mr. Collingwood Schreiber is acceptable to both of us as third arbitrator in matters of dispute under clauses 7 and 4, 3rd Ed. VII, Chap. 71, and he has agreed to act as such with the consent of the Prime Minister, we send him a joint letter asking him to act. If you think well of this, please sign the enclosed in quadruplicate, and on receiving them here, I will sign the same, and will ask Mr. Schreiber also to sign as accepting the position, after which, I will return two copies to you.

In regard to yours of the 19th ultimo. The questions of classification and overbreak are the only ones I can think of that have heretofore been repeatedly taken up in interviews with your late General Manager, and about which there has been considerable corespondence between your assistant chief engineer and myself, and these, in my opinion, are the questions now to be submitted; other questions that may hereafter arise can be submitted from time to time.

HUGH D. LUMSDEN,
Chief Engineer.

SESSIONAL PAPER No. 42a

May 14, 1909.

Mr. HUGH D. LUMSDEN,
Chief Engineer,
Transcontinental Railway Commission,
Ottawa, Ont.

DEAR SIR,—As promised, I send herewith, in duplicate, Form of Agreement covering matters to be arbitrated, pertaining to the Eastern Division, which has been executed on the part of the Company. If acceptable to the Honourable the Minister of Railway, kindly return one copy to me after being signed on behalf of the Government.

E. J. CHAMBERLIN,
Vice President and General Manager.

THIS AGREEMENT made the Fourteenth day of May, A.D. 1909.

Between:

HIS MAJESTY THE KING, acting in respect of the Dominion of Canada and herein represented by the Honourable George P. Graham, Minister of Railways and Canals, hereinafter called the 'Government,'

Of the First Part,

and

The GRAND TRUNK PACIFIC RAILWAY COMPANY, hereinafter called the 'Company,'

Of the Second Part.

Whereas in and by the seventh clause of the agreement entered into between the parties hereto, dated 29th July, 1903, being Schedule to 3, Edward VII, Chapter 71, providing for the construction of the Eastern Division subject to the joint supervision, inspection and acceptance of the Chief Engineer appointed by the Government and the Chief Engineer of the Company, it is provided that in the event of differences between the said Engineers as to the specifications for the Eastern Division, or in case the said Engineers should differ as to the work, the questions in dispute shall be determined by the said Engineers and a third arbitrator to be chosen in the manner provided in paragraph 4 of said agreement;

And Whereas differences have arisen between the said Engineers both as to the said specifications and work, and Collingwood Schreiber, Esquire, C.M.G., has been duly chosen third arbitrator in conformity with the provisions of Clause 7 of said agreement;

Therefore this Agreement Witnesseth that the following questions in regard to the specifications and the work in respect of which the said engineers have differed shall be submitted for determination to the said engineers and the said Collingwood Schreiber, Esquire, as third arbitrator, namely:—

(*a*) The interpretation of the specifications as applied to the actual work, each party under this heading to be at liberty to ask for the construction or interpretation of any particular clause of the specifications not already approved by the engineers and such construction or interpretation when given to be conclusive as to all work already done, and to be thereafter binding in regard to all future work to be done.

(*b*) Classification of material handled by contractors in the formation of the roadbed, or incident to other work forming part of any of the contracts on the Eastern Division.

(*c*) Payment to contractors for handling material in cutting in excess of the theoretic section to be excavated, whether caused by slides, excessive use of explosives or otherwise, and commonly termed 'over-break.'

(*d*) All other matters not included in the foregoing but which may properly form the subject to arbitration under Clause 7 of the said agreement, that may be presented during the arbitration of which matters, provided however at least ten days notice must be given by the party submitting the same for arbitration, to the other.

The award of the said arbitrators, or a majority of them, shall be final and binding upon the parties hereto, each of whom agrees with the other to abide by and observe such findings as may by the said arbitrators be made under and in pursuance of these presents.

It is agreed that neither party will be represented by Counsel before the said arbitrators in respect of any questions coming before them for determination under any of the clauses of this agreement.

And for the sake of ensuring uniformity in the interpretation of the specifications, and in the work of construction of the Eastetrn Division, as well as for the sake of ensuring speedy action and obviating unnecessary delay;

The parties further agree:—

That the said Collingwood Schreiber is to continue to act as third arbitrator in respect of all future differences determinable as provided under Clause 7 of the said agreement, which may from time to time arise between the said engineers without the necessity for a formal re-appointment in each particular case that may arise for arbitration.

In Witness Whereof this agreement has been duly executed by the parties.

Signed, Sealed and Delivered in the presence of } HIS MAJESTY THE KING

.....

THE GRAND TRUNK PACIFIC RAILWAY COMPANY.

E. J. CHAMBERLIN,
Vice Prest. & Gen. Manager.

HENRY PHILLIPS,
Secretary.

Memorandum of Agreement to be Drawn Up Between the Commissioners of the Transcontinental Railway and The Grand Trunk Pacific Railway Company.

Monthly estimates for Contractors shall be submitted promptly from time to time by the Chief Engineer of Commissioners to the company's Assistant Chief Engineer at Montreal for approval. If he has any objection to such estimates he shall promptly file the same with the Chief Engineer of the Commissioners, and any objections from time to time filed shall thereupon be considered, and, if possible, determined by the said Engineers, and in case of their failure to agree, may then or at any time before or at the time of the final payment, at the option of either party, be considered and determined by arbitration as provided in the agreement of the 29th July, 1903, but in no case shall the payment of monthly estimates be delayed except with the consent of the Commissioners.

In case the Chief Engineer of the Commissioners and the Assistant Chief Engineer of the company disagree as to the final payment, the same shall be withheld until the matter is determined by arbitration, as provided in the said agreement of 29th July, 1903.

May 15, 1909.

E. J. CHAMBERLIN, Esq.,
Vice-President and General Manager, G.T.P.,
Montreal, Que.

DEAR SIR,—Yours of yesterday enclosing proposed agreement covering matters of arbitration duly received, and on bringing the matter before the Commissioners to-day, they are of the opinion that any such agreement is unnecessary, and all that

is now required is, for the three engineers to proceed under Clause 7 of the agreement and arbitrate matters of classification and overbreak, as specified in my letter to Mr. Kelliher, dated the 1st of February, 1909.

HUGH D. LUMSDEN.

May 17, 1909.

COLLINGWOOD SCHREIBER, Esq.,
General Consulting Engineer to the Government,
Ottawa, Ont.

DEAR SIR,—Herewith please find copy of proposed agreement as submitted by Mr. E. J. Chamberlin in a letter to me dated the 14th instant.

H. D. LUMSDEN.

OTTAWA, March 16, 1909.

COLLINGWOOD SCHREIBER, Esq.,
General Consulting Engineer to the Government,
Ottawa, Ont.

DEAR SIR,—By clause 7 of the agreement between the Government of Canada and the Grand Trunk Pacific Railway Company, dated the 29th July, 1903, being schedule to 3 Edward VII, Chapter 71, in regard to the construction of the eastern division, it is provided, that the work shall be done according to the specifications approved of by the Grand Trunk Pacific Railway Company, and shall be subject to the joint supervision, inspection and acceptance of the chief engineer appointed by the government and the chief engineer of the railway company, and in the event of differences as to the specifications, or in case the said engineers shall differ as to the work, the questions in dispute shall be determined by the said engineers and a third arbitrator to be chosen by them.

Some such differences having arisen as a result of objections filed by the company, we hereby beg to choose you as third arbitrator for the determination of the questions now in dispute, and on which we have failed to agree after visiting the work, and shall be pleased if you are agreeable to accept the office. In the event of your acceptance, a formal submission will be prepared and handed to you later,

HUGH D. LUMSDEN,
Chief Engineer, Transcontinental Railway.

B. B. KELLIHER,
Chief Engineer, Grand Trunk Pacific Railway.

I hereby accept the above appointment.

COLLINGWOOD SCHREIBER.

March 22, 1909.

OTTAWA, June 14, 1909.

COLLINGWOOD SCHREIBER, C.M.G.,
Room No. 148,
Department of Railways and Canals,
Ottawa.

DEAR SIR,—By direction, I have the honour to hand you herewith a copy of the following letters:—

Hugh D. Lumsden to B. B. Kelliher, January 16, 1909.
H. A. Woods to Hugh D. Lumsden, July 28, 1908.
" " " July 8, 1908.
" " " June 23, 1908.
" " " April 23, 1908.
" " " April 21, 1908.
" " " March 24, 1908.
" " " February 20, 1908.
" " " February 14, 1908.
" " " November 4, 1907.
" " " October 8, 1907.
" " " October 7, 1907.

(The above relate to questions in dispute between the Chief Engineer of the Grand Trunk Pacific Railway and the Chief Engineer of the Commissioners with respect to classification.)

H. A. Woods to Hugh D. Lumsden, March 30, 1908.
" " " June 19, 1908.
" " " June 26, 1908.
" " " October 2, 1908.

(The above relate to the question of 'overbreak' in cuttings in district 'F.')

Copy of memorandum of agreement approved 10th January, 1908, *re* monthly estimates and arbitration.

Draft agreement, dated 14th May, 1909, submitted by the Grand Trunk Pacific Company *re* arbitration.

Letter—Hugh D. Lumsden to Collingwood Schreiber, May 17, 1909.

Letter—E. J. Chamberlin to Hugh D. Lumsden, May 14, 1909.

Letter—Hugh D. Lumsden to E. J. Chamberlin, May 15, 1909.

These documents bear on the questions in dispute between the engineers of the Grand Trunk Pacific Company and the engineers of the commissioners, which have been submitted for settlement under the terms of the National Transcontinental Railway Act to the arbitration board, of which you are the third member agreed upon by the chief engineer of the company and the chief engineer of the commissioners.

It is understood that none of these documents, except draft agreement, dated 14th May, 1909, and letters Hugh D. Lumsden to Collingwood Schreiber, dated May 17, and E. J. Chamberlin to Hugh D. Lumsden, dated May 14, 1909, have been previously submitted to you.

P. E. RYAN,
Secretary.

WINNIPEG, MAN., June 19, 1909.

The Secretary,
Transcontinental Railway Commissioners,
Ottawa.

I understand arbitrators went over Transcontinental examining work and taking evidence. They did not seek information from me or my company. I assume their action cannot affect contractors, and that in any event no report will be made that will affect contractors without giving them an opportunity of being heard.

J. D. McARTHUR.

SESSIONAL PAPER No. 42a

OTTAWA, June 22, 1909

Hon. S. N. PARENT,
Chairman, T. C. Ry. Com'n.,
Ottawa.

DEAR SIR,—I have the honour to submit to your board a report concerning the inspection of the work of construction and attempted reclassification by the Inspectors, Messrs .Schreiber, Kelliher, and our Chief Engineer, Mr. Lumsden, from Lake Superior Junction to ten miles west of Rennie, a distance of about 195 miles, such inspection having taken place from Friday evening May 21, to Saturday evening June 5th of this year.

I do not know of what nature the reports of said inspectors may be; but as district engineer in charge, I must protest against the manner in which such inspection was made as being altogether inadequate and too superficial to form a correct idea of what was the material like at the time the work was done.

I accompanied the inspectors the whole day, but having been advised that there was to be no argument, I kept at a respectful distance. In two instances when Mr. Mann, of the G.T.P. was passing some comments on the work, I attempted to explain and give reasons and arguments; but I was made to feel it would not be tolerated. At the same time Mr. Mann was allowed to pass comments all along the work, while I was never asked for an explanation until we had reached Winnipeg. On Friday evening, May 21st, we passed over a portion of the 11 miles built by the G.T.P. from the new Lake Superior Junction to Sioux Lookout crossing, about 6 miles, passing through the cuts slowly in the car while I read the quantities returned in the estimate for each cut such as returned to me by the G.T.P. On Saturday we reached the east end of the McArthur Co.'s contract about ten o'clock a.m., having stopped three or four times along the five miles, and reached the end of the tenth mile of the McArthur contract.

On Saturday the 23rd we went back to examine the first cut and then went as far as the end of the steel at mile 13. On Monday we walked to mile 25th., on Tuesday, May 25th, we reached mile 39 and drove in to mile 43, Good Lake, to divisional headquarters. Divisional Engineer Richan and Messrs. McHugh and Philips accompanied us and read quantities and showed cross section whenever they were wanted. The only question asked me by Mr. Schreiber about the work was, how I would return a certain portion of one cut. On my answering 'assembled rock' he answered, 'you are wrong, the chief engineer meant there should be at least 80% of large masses of rock.' I said nothing but wondered how he knew so well the meaning of that which the chief engineer had apparently in his mind but did not say in the interpretation given to us. On the 26th we drove back to mile 39 and walked and drove to mile 52. Next day to mile 62 and so on until we reached Winnipeg River, mile 135, which had been covered partly on foot and partly driving, averaging a distance of 12 to 13 miles per day.

The arbitrators asked for the quantities from the resident or divisional engineers, they walked through the rock cuts, sometimes had small diggings made in the slopes of mixed material cuts, walked outside of some of the rock cuts, then Mr. Kelliher and Mr. Lumsden would take their notes. Mr. Schreiber did not take notes but at different times suggested notes to be taken of certain amounts of overbreak or waste in cutting without knowing or even asking the reason of its having been done. The balance of the forty-five miles was gone over in two and a half days.

I humbly maintain that, though there might be a few points which may need to be looked into and possibly readjusted on some residencies and of which I have taken notes, that from a superficial examination such as has been done by the three arbitrators at the end of May and beginning of June, when the best and driest of weather had prevailed for nearly six weeks, that when after the greater portion of the cutting and country adjoining had been drained for a period of one year or more, that not-

withstanding the ability and experience of these gentlemen the difference of conditions and state of materials as it appeared in the slope of the cuttings and what it was when taken out make it impossible for them to form a just and correct idea and that it is unfair and unjust to attempt to reclassify work and pass a final judgment on such a superficial examination for data. Moreover, the whole matter seems to rest on a different interpretation made by our engineers and those of the G.T.P. on the Transcontinental (but not on the G.T.P. work) not only of the specification but also as to the real meaning of the letter and diagram given to us by the chief engineer in his instructions of January, 1908.

I assumed charge of District 'F' in October, 1907. The data of the completion of the contract was passed. I was instructed by your board, through the chief engineer and the assistant chief engineer, to rush the work to completion. I gave instructions to that effect and also to classify the work according to the state and conditions the material was in at the time it was taken out, and I consider I acted not only within the spirit but also strictly within the letter of the specification and the special interpretation given out to us by the chief engineer on January 19, 1908.

S. R POULIN,
District Engineer.

QUEBEC, June 23, 1909.

Hon. S. N. PARENT,
Chairman,
Ottawa.

DEAR SIR,—I have to report that the arbitration board appointed to inquire into the complaints made by the engineers of the Grand Trunk Pacific Railway, re alleged overclassification by our engineers at certain specified points in District 'B", made a hasty inspection of our line from mile 150 to mile 50 west of the Quebec bridge. The specified points were as follows:—

From the Batiscan river (mile 65) westerly to mile 85, and from mile 115 westerly to mile 132. In the former mileage no complaints in detail were advanced, but it was stated that on account of the Grand Trunk Pacific Railway engineers not being supplied with total quantities of graduation, they could not judge with reference to any particular cutting, although percentages for the entire distance seemed excessively heavy in both loose and solid rock. Between miles 115 and 132, however, illustrations of the classification were given in the following cuttings:—

Stations 5818 to 5826.
" 5842 to 5860.
" 5866 to 5875.
" 5882 to 5901.
" 6030 to 6046.
" 6071 to 6078.
" 6391 to 6394.
" 6493 to 6504.
" 6506 to 6512.
" 6522 to 6548.

The complaints were made by the Assistant Chief Engineer of The Grand Trunk Pacific Railway in October, 1907, prior to the interpretation of the classification made by our Chief Engineer, Mr. Lumsden, in January, 1908, and which interpretation was accepted by Mr. Woods, the Assistant Chief Engineer of the Grand Trunk Pacific Railway, acting on its behalf.

On Friday, June 11, I received a telegram from our Chief Engineer advising me that the arbitrators under agreement with the Grand Trunk Pacific would be in Quebec Tuesday morning, proposing to begin their work at the 150th mile west of Quebec, the westerly end of Hogan & Macdonell's contract, and work easterly.

On June 14 our Chief Engineer wired me that the present inspection would be confined to objections made on or before July 8, 1908, and later that the arbitrators would only leave Quebes Wednesday morning.

On our way to La Tuque I told the Chief Engineer that we would stop at the 132nd mile, or station 6660, as this was the furthest point to which objections had been made prior to July, 1908. The Chief Engineer of the Grand Trunk Pacific Railway speaking, I take it, on behalf of the arbitrators, as neither of the other two made any objections, answered that they were going up to the 150th mile, or 18 miles further west than authorized by their commission. Under the circumstances, I could only give orders to proceed with the train as far as the present end of steel at mile 140½. No questions were asked me as to the work, how the classification had been arrived at, or what was the interpretation put by our engineers on the classification. On Thursday a start was made at five o'clock in the morning, reaching the 150th mile at nine o'clock. The first cut inspected consisted of classified material in which one thousand yards of solid rock in masses had been returned by our engineers . Mr. Schreiber turned to me and asked me to point out where the thousand yards of solid rock were. I answered him that the cutting was classified material, and that the boulders of which it was composed were in the embankments. I was saked to point out where 1,000 yards of boulders averaging one cubic yard each could possibly be; to which I said that as the material was classified, it did not matter whether the boulders were a yard each so long as the mass consisted of boulders large and small cemented together, M. Kelliher, the chief engineer of the Grand Trunk Pacific, then spoke up and said that if I read the specifications I would see that boulders to be estimated as solid rock must measure one yard each. I at once saw that the arbitrators had made up their minds to throw out everything which our chief engineer had returned as solid rock except ledge rock and boulders each of which measured one cubic yard, and that in the subsequent inspection of the work there would be no use in my taking part. I, therefore, contented myself in keeping ahead of the arbitrators and ordering the division and resident engineers to give them all the information they had regarding total quantities returned in each cutting. The method of classifying adopted by the arbitrators consisted in walking through the cuts or riding on a hand car through them. At each end of the cuts Mr. Schreiber and Mr. Kelliher would confer together, our own chief engineer generally being left to himself. Mr. Schreiber did not take any notes himself, but was satisfied to leave this part of the work to Mr. Kelliher. After reaching the cars at night, Mr. Kelliher would give the notes to the stenographer, who was supposed to typewrite them and hand the copies over to the Chief Arbitrator, Mr. Schreiber. The day's work consisted in walking or riding on a hand car over from 13 to 29 miles of railway and guessing at the classification by a most cursory inspection of the cuts and borrows. A great deal of the work had been completed for two years, and our engineers wondered how any man could arrive at a fair classification in five minutes time when it had taken them two years or more to arrive at a fair conclusion of the classification of the material. As the arbitration had taken so long to materialize, a great many of our engineers had either left the work or had been moved to other residencies, so that the arbitrators did not have the benefit, over fully half of the work inspected, of the experience gained by the engineers who had really classified the work. Whilst I do not pretend to say that I am personally aware that every cut, as returned, is exactly correct, since the work to be classified properly must be inspected at very frequent intervals during construction, still I am positive that a cursory inspection, such as has actually taken place, is absolutely worthless.

I attach hereto a statement showing the number of yards of solid rock, loose rock and common excavation classified in a six days' trip, and I am forced to the conclusion that if the inspection did not ensure conclusive correctness, it certainly must hold the record on the score of expedition.

The arbitrators pointed out to me some defective work in masonry which I promised to have remedied. They admitted to me that the rock cuttings were generally well taken out and that the concrete work was very good. Some waste in rock cuts near the Milieu river will also receive my attention.

A. E. DOUCET,
District Engineer.

MONTREAL, Quebec, June 23, 1909.

Mr. Hugh D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I beg to acknowledge receipt of your favour of the 19th instant, together with copies of settlement sheets of contractors' progress estimate returns for the month of May, as follows:—

District 'A.'—Grand Trunk Pacific.
J. W. McManus. & Co.
Lyons & White.
Willard Kitchen & Co.
District 'B.'—Grand Trunk Pacific.
M. P. & J. T. Davis (east).
M. P. & J. T. Davis (west).
Macdonell & O'Brien.
E. F. & G. E. Fauquier.
District 'D.'—Grand Trunk Pacific.
District 'F.'—J. D. McArthur.

Upon comparing these estimates with those received since January last, I find that the percentage of classified material in Districts 'B' and 'F' remain practically in the same proportions as in former estimates received since January last. As I cannot believe that this classification, as rendered, as in accordance with the specifications, or with your letter of instructions to your district engineers of January 30. I must again object to the classification. Our recent visit to certain portions of the line on district 'F' confirms my views relative to classification on both these districts.

H. A. WOODS,
Assistant Chief Engineer.

STATEMENT of Solid Rock, Loose Rock and Common Excavation compiled to the end of May, 1909, and adjudicated upon by the Arbitrators from June 17 to 22, 1909.

LOCATION.		SOLID ROCK.		LOOSE ROCK.		COMMON EXCAVATION.	
From	To	Quantity.	Per Cent.	Quantity.	Per Cent.	Quantity.	Per Cent.
		Yds.		Yds.		Yds.	
50	65	62,333	16	138,929	36	182,086	48
65	92	455,232	45	310,029	30	257,181[3]	25
92	111	667,340	72	163,334	18	88,961	10
111	122½	825,666	72	131,083	11	196,130[7]	17
122½	140½	552,950	32	465,056	27	694,815	41
140½	150	393,931	65	125,588	21	84,687	14
Total for contract		2,957,452	51	1,334,019	23	1,503,861	26

SESSIONAL PAPER No. 42a

QUEBEC, June 23, 1909.

NOTES OF ARBITRATION TRIP DISTRICT 'B.'

June 16 to 22, 1909.

We were notified that arbitrators under agreement with the Grand Trunk Pacific would arrive at Quebec Tuesday morning, June 15, and requested to arrange for a special train to leave Quebec at 9.30 Tuesday morning to proceed to La Tuque and inspect cuttings under dispute as to classification.

These disputed cuttings did not extend further north than the 132nd mile. Late Monday night received telegram to postpone trip until Wednesday morning, June 16. Messrs. Schreiber and Lumsden arrived Tuesday morning and about 10 o'clock Mr. Lumsden came to district office and stated that the other arbitrator, Mr. Kelliher, would leave Montreal at noon that day and to arrange for a special train to be ready to leave at 10 p.m. or at such an hour as to ensure us being at the 132nd mile at day-light Wednesday morning the 16th, as he stated that it was agreed between himself and Mr. Schreiber that the inspection would not go further north and would only refer to disputed work. The train arrangements were accordingly made, engineers and contractors notified, when at 5 p.m. a telephone from Mr. Lumsden changed this and asked for the special to leave Quebec Wednesday 16 at 9.30 a.m.

We left Quebec Wednesday morning and arrived at La Tuque about 3 p.m., and at end of steel (140½ mile) at 7.30 p.m.

Wednesday night Mr. Lumsden came in to our car and said the arbitrators wanted to go to the 150th mile, although it was beyond the disputed work, but that he would not take notes except for the disputed work, and that also, as Mr. Schreiber wanted an early start, we would start at 5 a.m., the next morning. Without any further information or notice, the arbitrators passed our car at 4.40 a.m. while we were at breakfast and walked north.

We, Messrs. Doucet, Doheny, Fotheringham and self left at 5 a.m. sharp, but did not see any sign of the three in advance until we got to Craig & Thompson's camp, mile 150. In the meantime we had picked up Resident Engineer Paris and met Division Engineer Darey.

While at Craig's camp a shout came from the line about one-quarter mile distant, and shortly after Mr. Kelliher descended and preemptorily demanded our notes, &c. We all walked up to the line, and I explained to Mr. Lumsden that I had brought no notes covering that piece of the line as he had informed me that it was not to be officially arbitrated on, and I naturally thought that this trip more of curiosity or a desire to see how far advanced the construction was. However, Mr. Paris (the resident engineer) had his notes, and corroborated by Mr. Fotheringham (district engineer, Grand Trunk Pacific) called them out for a certain distance, giving the limit of each cutting and the number of cubic yards of solid rock, loose rock and common excavation returned to date.

Messrs. Lumsden and Kelliher took these notes down in a little book, and as Mr. Schrieber was not doing so, I asked him, 'Mr. Schreiber are you not taking any notes over this section?' and he replied 'No, which confirmed my belief that it was not to be arbitrated upon.

On the question of solid rock being described as assembled rock, Mr. Kelliher broadly stated that there was no 'assembled rock in this country, nothing but sand and boulders,' this opinion either being formed before he visited the work or during the ten mile walk at the rate of 2½ to 3 miles per hour and looking at finished slopes.

As this statement simply revived the much discussed interpretation of the specifications, and as his interpretation was different from ours, it was useless to talk further, so we kept a little in advance and left the resident engineer to simply give quantities, the station number of each cutting and say whether it was ledge rock, or what he (the resident engineer) called assembled rock.

Generally speaking, the procedure was the same over the whole of the district, the obtaining of quantities and station numbers from each resident engineer, a walk through the cutting and the putting down of notes.

Mr. Kelliher and Mr. Schreiber always kept together and Mr. Kelliher put the notes down in his book. Mr. Lumsden took independent notes; Mr. Schreiber took none at all (*i.e.*, he did not write any down).

Between the 132nd and the 150th mile in only two cases to my knowledge was any attempt at inspection made, one where Mr. Kelliher in questioning Resident Engineer Cressman as to cemented material, walked up to the finished slope and rooted out with his foot some boulders and remarked, 'Do you call that cemented?' when Cressman replied that it was not now, but it was different after two years' exposure.

Another case was on side of hill where a pick and shovel were used and men dug about a foot into the slope.

At about the 132nd mile cut station 6576-92, Resident Engineer Girdwood was questioned as to how he got his 1,174 cubic yards of solid rock, and he replied in boulder measurements, and led the arbitrators to believe that each individual boulder measured 1 c.y. which I knew he did not mean, and which afterwards Mr. Bourgeois informed me was not the case, as the cut in question was a mass of boulders cemented together and Girdwood had taken measurements of all boulders for a certain time to arrive at a means of estimating the percentage of solid rock in the cutting, based on our interpretation of 'assembled rock,' as the material was cemented together.

Mr. Kelliher and Mr. Schreiber stated that each boulder must measure 1 c.y. and when I stated that even in the case of individual boulders not necessarily cemented together, Mr. Woods had told me that it was not absolutely customary that they should measure 1 c. y. or 27 c. ft. exactly, but that where a boulder separate or detached was of such a size as not to be handled by two or three men, it could be called a yard. Mr. Kelliher said Mr. Woods had nothing to do with it; he did not make up specifications, and this was not in the specifications.

The following is a dairy of each days' work:—

June 17.—Inspected 150-140½ mile; walked 20 miles, 5 a.m. to 6 p.m.

June 18.—Inspected 140½-122½ mile; hand car and train, 18 miles, 7 a.m. to 3.30 p.m.

June 19.—Inspected 122½-111 mile; walked 11½ miles, 9 a.m. to 6 p.m.

June 20.—Inspected 111-92 mile; hand car 12 miles; walked 7 miles, 7.30 a.m. to 6 p.m.

June 21.—Inspected 92-65 miles; hand car 27 miles, 7.30 a.m. to 5 p.m.

June 22.—Inspected 65-50 mile; hand car 15 miles and return 11 miles, 6 a.m. to 12 noon.

The above will show how thorough the inspection was. Some classified cuts their hand car did not even stop at, notes being made 'en route.'

We had photographs of the different cuts in progress of construction, but were not questioned or asked to produce anything, and the only engineer questioned on oath was Mr. Bourgeois who, unfortunately, was sick and in the doctor's hands and unable to accompany the arbitrators over the line.

H. E. HUESTES,
Asst. District Engineer.

MONTREAL, June 24, 1909.

To the Chairman of the Commissioners of the Transcontinental Railway,
Ottawa, Ontario,

DEAR SIR,—We are informed by our representative that on Wednesday of last week, the 16th instant, Mr. Lumsden, your chief engineer, accompanied by Mr. Collingwood Schreiber and Mr. Kelliher, paid a hurried visit to the section of the Transcontinental Railway which under contract we are constructing for you.

We do not know what these gentlemen had in view in making the hurried visit which they did, and it is possible that it was merely a visit of personal interest to them individually.

We were notified by you or by the gentlemen above referred to that the visit would take place. We assume that owing to the hurried nature of the visit it was not a tour of inspection in any sense of the term, as the inspection of such an area of construction could not possibly have been thoroughly made during the time at the disposal of these gentlemen, who were on the ground less than a week.

If by any chance this visit was supposed to be more or less of an official character —which we can hardly credit—we must protest against any report being made by these gentlemen which may affect us without our being given an opportunity of being heard before them and of being given communication of their report before it is published, with sufficient time to make an inspection of it and enter objections, if we deem that necessary.

We will thank you to acknowledge receipt of this communication, and to inform us not later than Saturday of this week what was the object of the visit of these three gentlemen.

MACDONELL & O'BRIEN.

WINNIPEG, MAN., June 19, 1909.

P. E. RYAN, Esq.,
Secretary, Transcontinental Railway Commission,
Ottawa, Ont.

DEAR SIR,—I have this day sent you a wire in the following words:—

> 'I understand arbitrators went over Transcontinental examining work and taking evidence. They did not seek information from me or any company. I assume their action cannot affect contractors and that in any event no report will be made that will affect contractors without giving them an opportunity of being heard.'

I sent you this wire because it has been suggested to me that Mr. Schreiber, along with Mr. Kelliher and Mr. Lumsden, went over the portion of the Transcontinental line embraced in my contract, with a view of revising some of the work. It has been suggested to me that they were doing this in the capacity of arbitrators, though I know of no particulars connected with their action. At all events, I understand that they were taking evidence of some of the engineers on the subject.

I am assuming, as stated in my wire, that it is not intended that any action of these gentlemen will in any way affect contractors who have contracts from the commissioners, and certainly I would expect—if it was intended to make any inquiry that might in itself result in affecting contractors—that the latter would have an opportunity of being heard before any report is sent in by these gentlemen. I can scarcely understand that any action would be attempted affecting contractors without that opportunity being given, and I therefore hesitated somewhat to send you the telegram referred to or to write you this letter. But in view of what has been suggested to me, although I must admit upon no very certain authority, I thought it well to send that wire and this letter in order that the commissioners may know that I would most seriously protest any action that might affect myself or my sub-contractors, without first being fully advised of all complaints as well as an opportunity to be heard.

J. D. McARTHUR.

OTTAWA, June 25, 1909.

Hon. GEORGE P. GRAHAM,
Minister of Railways and Canals,
Ottawa, Ont.

SIR,—Herewith I beg to inclose copy of a letter written by me to-day to the Commissioners of the Transcontinental and for the reasons therein mentioned, I beg to resign my position as Chief Engineer of the Transcontinental Railway, and trust that I may be relieved of the duties connected therewith at as early a date as may be convenient.

HUGH D. LUMSDEN.
Chief Engineer.

OTTAWA, June 25, 1909.

To the Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS,—My recent trips over portions of Districts 'B' and 'F' in connection with the arbitration on points in dispute regarding the classification and overbreak between the Chief Engineer of the Grand Trunk Pacific Railway Company and myself (which arbitration might have been proceeded with more than eight months ago but for delay on the part of the Grand Trunk Pacific), have led me to the conclusion that neither the general specifications nor my instructions regarding classification have been adhered to, but on the contrary large amonts of material have been returned as solid rock, which should only have been classified as loose rock or common excavation, and material has been returned as loose rock which was, or could have been handled by ploughing or scraping, and should have been returned as common excavation. On several residencies there seems to have been no attempt by the engineers to carry out my instructions and measure rock returned, either by showing the same on cross sections, or by measurements of individual pieces, but they simply appear to have guessed at the amount by taking percentages of the total cutting. In some cases where cross sections were prepared showing ledge rock, they prove to be erroneous, resulting in a very much larger amount of the solid rock being returned than actually existed. What is known as overbreak has also been returned in many places where it was caused by excessive use of explosives, and where the material was wasted this should not have been done. Such being the case, I must decline to certify to any further progress estimates in Districts 'B' and 'F,' and in view of the general disregard of my instructions, and having lost confidence in the engineering staff, I have concluded to resign my position as chief engineer, and have to-day written to the Hon. the Minister of Railways and Canals to that effect, enclosing him a copy of this letter.

HUGH D. LUMSDEN.

OTTAWA, June 25, 1909.

DEAR SIR,—By direction of the board, I have the honour to hand you herewith:—

Copy of letter from Mr. A. E. Doucet, district engineer, dated 23rd instant;

Copy of notes of Assistant District Engineer Huestis, dated 23rd instant;

Copy of letter from Messrs. Macdonell & O'Brien, dated 24th instant;

Copy of letter from Mr. J. D. McArthur, dated 29th instant;

Copy of letter from Mr. S. R. Poulin, district engineer, St. Boniface, Man., dated 22nd instant;

Also a certified copy of a resolution of the commissioners dated 25th instant.

SESSIONAL PAPER No. 42a

I am to say that the commissioners object to and protest against the proceedings of the arbitrators as being improper and illegal, for the following reasons, viz:—

(*a*) that they were based in whole or in part on the said draft agreement of May 14, 1909, which had been rejected, and which had no existence in fact;

(*b*) that the examination of the work was of a hasty, insufficient and superficial character;

(*c*) that the engineers on the line who classified the work were not afforded a sufficient hearing and an opportunity of presenting evidenec;

(*d*) that the contractors were not afforded an opportunity of showing cause.

And further, that they insist, in the public interest, that the proceedings of the arbitration tribunal shall be exhaustive, final and conclusive; shall cover all the objections filed on behalf of the Grand Trunk Pacific Railway Company, and that the report of the arbitrators, when made, shall be supported by substantial evidence, including details of quantities, &c., which will safeguard the position of the commissioners in any litigation which may arise with the contractors as a result of any action which may follow the report of the board of arbitration.

P. E. RYAN,
Secretary.

The above letter was sent to:

HUGH D. LUMSDEN, Esq., Chief Engineer, the Commissioners of the Transcontinental Railway, Arbitrator in *re* Transcontinental Railway Classification, Ottawa.

B. B. KELLIHER, Esq., Chief Engineer, Grand Trunk Pacific Railway Company, Arbitrator in *re* Transcontinental Railway Classification, Montreal, Que.

COLLINGWOOD SCHREIBER, C.M.G., C.E., Third Arbitrator in *re* Transcontinental Railway Classificatiton, Department of Railways and Canals, Ottawa, Ont.

OTTAWA, June 25th, 1909.

A special meeting of the Commission was held at eleven o'clock, a.m., this day, the chairman, Commissioners Reid and Young and the secretary being present.

A letter from District Engineer Doucet dated 23rd instant and a memorandum of Assistant District Engineer Huestis, dated 23rd instant, reporting in regard to the arbitration proceedings of the arbitration tribunal composed of Mr. Collingwood Schreiber, C.E., Mr. B. B. Kelliher, chief engineer of the Grand Trunk Pacific Railway Company, and Mr. Hugh D. Lumsden, chief engineer of the commissioners, in district 'B' were read.

Inasmuch as it would appear from the reports of District Engineer Doucet and Assistant District Engineer Huestis that the inspection of the arbitrators, although extended to cuttings on the work with respect to which objections had not been filed by the inspecting engineers of the Grand Trunk Pacific Railway Company, was in fact (and having regard to the mileage covered, the enormous quantities of classified material to be passed upon, and the brevity of the time (six days) occupied in the said inspection must necessarily have been), of an exceedingly superficial character; that the interpretation of the clauses of the specifications relating to classification made by the chief engineer of the commissioners in January, 1908, and concurred in under date of February 20th, 1908, by the assistant chief engineer of the Grand Trunk Pacific Railway Company, superintending the work of the eastern division on behalf of the Grand Trunk Pacific Railway Company, was in part, if not wholly, ignored by the arbitrators; and further, that the views of the assistant chief engineer of the Grand Trunk Pacific Railway Company with respect to the work were expressly repudiated by Mr. B. B. Kelliher, one of the arbitrators, and inferentially by all the members of the arbitration tribunal, notwithstanding that he is the official designated in

the memo. of agreement approved by Mr. Charles M. Hays, president of the Grand Trunk Pacific Railway Company, and by the commissioners on January 10th, 1908, to file promply with the chief engineer of the commissioners objections, if any, on behalf of the company, to the contractors' monthly estimates, and further notwithstanding that he is the official of the G. T. P. Company who filed on behalf of the company the objections constituting 'the questions in dispute,' which the board of arbitrators were appointed to determine; and

Whereas, from the verbal report made to the chairman of the Commission by Mr. Collingwood Schreiber, C.E., the third arbitrator agreed upon by the chief engineer of the commissioners and the chief engineer of the Grand Trunk Pacific Railway Company, after his return from the arbitration proceedings of the tribunal in district 'F,' the letters of the G. T. P. Co.'s assistant chief engineer, which contain the matters in dispute to be settled by the arbitration tribunal had not been furnished to him (Mr. Schreiber), the third arbitrator, and were not considered at all by the arbitrators on the work; but that proceedings were conducted on the basis of a draft agreement submitted by the Grand Trunk Pacific Railway Company, signed by the general manager and the secretary of the company and dated May 14th, 1909, which had been forwarded to Mr. Schreiber by the chief engineer of the commissioners under date of May 17th, 1909, although he (the chief engineer of the commissioners) had been advised by the commissioners on the 15th of May that such agreement was rejected, which advice he had confirmed by the Deputy Minister of Justice, and which he had communicated to the general manager of the G.T.P. Co. under date of May 15th, 1909; and

Whereas, it is inconceivable that proceedings of such great importance, and possibly involving a very large sum of money, and which may result in much expensive and troublesome litigation between the contractors and the commissioners, should have been conducted in such a hasty and superficial manner, without a sufficient hearing being granted to the engineers on the work: for in his diagram illustrating his interpretation of the specifications dated January 10th, 1908, the chief engineer stated: 'To form a judgment as to whether or not it is best removed by blasting, the chief engineer must view the work in progress or leave it to be decided by the engineer in charge, whose duty it is to frequently visit the work during its operation, and to be governed thereby and act accordingly"; and under date of August 27th, 1908, in a letter to the commissioners: 'In regard to the classification of the work, I am now, and always have been, of the opinion that the resident engineer on the work is the proper person to make the classification in the first instance, as he sees the work from day to day, and makes the necessary measurements. This classification should be confirmed or amended by the division engineer, who should go over the ground with the resident engineer several times during the month, and this should be further confirmed or amended by the district engineer, or his assistant, who should go over the said work with the division and resident engineers as frequently as possible and see that the classification is as uniform as practicable throughout the district'; and

Whereas, the subject matter of the arbitration, as defined by the letter of the chief engineer of the commissioners and of the chief engineer of the Grand Trunk Pacific Railway Company, dated March 16th, 1909, to Mr. Collingwood Schreiber, C.E., choosing the latter as the third arbitrator, was 'the determination of the questions now in dispute and on which we have failed to agree after visiting the work.'

Resolved, that the secretary be, and is hereby, directed to write to the three arbitrators, transmitting a copy of the letters of District Engineer Doucet and notes of Assistant District Engineer Huestis, each dated 23rd June instant; a copy of the letter of Messrs. Macdonell & O'Brien, dated 24th instant; a copy of the letter of Mr. J. D. McArthur, dated 19th instant, and a copy of report of District Engineer Poulin, dated 22nd instant, all relating to the proceedings of the arbitration tribunal; and to

say that the commissioners object to and protest against the proceedings of the arbitrators as being improper and illegal, for the following reasons, viz.:—

(*a*) that they were based in whole or in part on the said draft agreement of May 14th, 1909, which had been rejected, and which had no existence in fact;

(*b*) that the examination of the work was of a hasty, insufficient and superficial character;

(*c*) that the engineers on the line who classified the work were not afforded a sufficient hearing and an opportunity of presenting evidence;

(*d*) that the contractors were not afforded an opportunity of showing cause;

and further to say that the commissioners insist, in the public interest, that the proceedings of the arbitration tribunal shall be exhaustive, final and conclusive; shall cover all the objections filed on behalf of the Grand Trunk Pacific Railway Company, and that the report of the arbitrators, when made, shall be supported by substantial evidence, including details of quantities &c., which will safeguard the position of the commissioners in any litigation which may arise with the contractors as a result of any action which may follow the report of the board of arbitration; that a copy of this resolution be forwarded with the letter of the secretary to the three arbitrators; and that a report be made to the government and to the Grand Trunk Pacific Railway Company accordingly with a copy of all the documents relating to the subject-matter hereof.

Approved.

S. N. PARENT,
Chairman.

P. E. RYAN,
Secretary.

OTTAWA, June 26, 1909.

Hon. GEO. P. GRAHAM, P.C.,
Minister of Railways and Canals,
Ottawa.

SIR,—By direction of the board, I have the honour to hand you herewith a copy of correspondence and other documents relating to the matters in dispute between the engineers of the Grand Trunk Pacific Company and the engineers of the commission submitted for determination to the board of arbitrators provided for under the National Transcontinental Railay Act, and composed of Mr. Collingwood Schreiber, C.M.G., Mr. B. B. Kelliher, Chief Engineer of the Grand Trunk Pacific Company, and Mr. Hugh D. Lumsden, Chief Engineer of the Commissioners of the Transcontinental Railway, including a copy of a resolution passed by our board at a special meeting held at 11 o'clock a.m., on the 25th of June instant, copy of letters from the undersigned, by direction of the board, dated June 25, to the arbitrators, and a copy of two letters dated the 25th and 26th instant respectively from the chief engineer of the commissioners relating to his resignation.

I am to say that the copy of the resolution passed by the commissioners at a special meeting held on the 25th instant aforesaid, and the letter of the undersigned dated the 25th instant to the chief engineer submitting a copy of the said resolution, were delivered to the chief engineer this a.m., before the board meeting, and the letters of the chief engineer dated June 25th and 26th relating to his resignation were presented at the board meeting held in the board room of the commissioners to-day at 12.30 p.m.

P. E. RYAN,
Secretary.

OTTAWA, June 26, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

DEAR SIRS,—Referring to my letter of yesterday wherein I stated that I have lost confidence in the engineering staff, I beg to state that this does not apply to the whole staff, but applies only to a portion of the staff who were responsible for the measurement, classification, supervision and inspection of considerable portions in district 'B' and east of Rennie Crossing in district 'F' lately gone over by me.

HUGH D. LUMSDEN.

P.S.—In order to make the matter clear, I may say I assume my resignation as chief engineer also carries with it my resignation as arbitrator in matters of dispute with the Grand Trunk Pacific Railway Company, but as there is a doubt raised by you, I also resign as arbitrator.

HUGH D. LUMSDEN.

OTTAWA, June 26, 1909.

DEAR SIR,—Referring to my letter of yesterday's date submitting copy of resolution passed by the commissioners at a special meeting held at 11 o'clock a.m., on the 25th instant; I have to say that in the fourth paragraph on the first page of the minutes of the said meeting after the words 'in distictr "F"' at the commencement of the sixth line the words 'the letters of the Grand Trunk Pacific Company's assistant chief engineer' should be inserted; the word 'and' which follows should be struck out, and the word 'contains' made to read 'contain,' so that the line referred to will read as follows: 'in district "F," the letters of the Grand Trunk Pacific Company's assistant chief engineer which contain the matters in dispute to be,' &c. Please correct in your copy.

P. E. RYAN,
Secretary.

The above letter was sent to—

HUGH D. LUMSDEN, Esq., Chief Engineer the Commissioners of the Transcontinental Railway, Arbitrator in *re* Transcontinental Railway Classification, Ottawa.

B. B. KELLIHER, Esq., Chief Engineer Grand Trunk Pacific Railway Company, Arbitrator in *re* Transcontinental Railway Classification, Montreal, P.Q.

COLLINGWOOD SCHREIBER, C.M.G., C.E., Third Arbitrator in *re* Transcontinental Railway Classification, Department of Railways and Canals, Ottawa, Ont.

OFFICE of the General Consulting Engineer to the Government, Engineer of the Western Division of the National Transcontinental Railway, Room No. 150 West Departmental Building.

OTTAWA, June 26, 1909.

Hon. GEORGE P. GRAHAM,
Minister of Railways and Canals,
Ottawa, Ont.

SIR,—Referring to my letter of yesterday to you inclosing copy of a letter I sent to the Commissioners, I now beg to inclose copy of anther letter sent them by me to-day.

HUGH D. LUMSDEN.
Chief Engineer.

SESSIONAL PAPER No. 42a

OTTAWA, CANADA, June 28, 1909.

P. E. RYAN, Esq.,
Secretary, Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—I have to acknowledge the receipt of your communication of the 25th instant, with inclosures.

As requested in yours of the 25th instant, I take pleasure in correcting the fourth paragraph on the first page of the minutes of the special meeting of the commissioners held at 11 o'clock a.m., on the 25th instant, by inserting after the words 'in district "F"' at the commencement of the sixth line the words 'the letters of the Grand Trunk Pacific Company's assistant chief engineer' should be inserted; the word 'and' which follows should be struck out, and the word 'contains' made to read 'contain,' so that the line referred to will read as follows: 'in district "F,"' the letters of the Grand Trunk Pacific Company's assistant chief engineer which contain the matters in dispute to be,' &c.

COLLINGWOOD SCHREIBER.

OTTAWA, June 30, 1909.

HUGH D. LUMSDEN, Esq.,
Chief Engineer, T. C. Ry. Commission,
Ottawa.

DEAR SIR,—I have the honour to acknowledge the receipt of your letter of the 25th instant inclosing correspondence sent by you to the Transcontinental Railway Commissioners and also proferring your resignation as Chief Engineer. It will be considered in due course.

GEO. P. GRAHAM.

OTTAWA, June 30, 1909.

HUGH D. LUMSDEN, Esq.,
Chief Engineer, T. C. Ry. Commission,
Ottawa.

DEAR SIR.—I beg to acknowledge yours of the 26th instant, inclosing a letter of explanation sent by you to the Commissioners in reference to the reasons given for your resignation.

GEO. P. GRAHAM.

OTTAWA, July 8, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa.

SIRS,—In compliance with your request, I beg to submit a statement of the security held by you for the completion of various contracts in Districts 'B' and 'F' as at June 1, 1909.

Contract No. 7 53·6 miles.

M. P. & J. T. Davis' deposit	$100,000 00 cash.
10% of progress estimate	82,001 57
Total	$182,001 57

Value of plant not known.

Contract No. 8 (East). 149·12 miles.

M. P. & J. T. Davis' deposit	$225,000 00	cash.
Balance of 10% hold-back	135,850 18	
Total	$360,850 18	

Value of plant not known.

Contract No. 9 (West). 49·8 miles.

M. P. & J. T. Davis' deposit	$284,794 00	Dep. Rect.
Balance of 10% hold-back	37,500 31	
Total	$322,294 31	

Value of plant not known.

Contract No. 10. Macdonell & O'Brien. 100·1 miles.

10% retained	$293,534 89
Their valuation of plant	500,000 00
Total	$793,534 89

A large amount of plant on work: Engines, cars, steam shovels, &c.—their estimate of value of plant on September 28, 1908, being $500,000.

Contract No. 11. Grand Trunk Pacific Railway Co. 46·4 miles.

Security	$ 75,000 00
10% hold-back	136,899 15
Total	$211,899 15

Value of plant not known.

District 'F.'

Contract No. 19. (Includes 20·19 miles in 'E.') O'Brien, Fowler & McDougall Bros. 126·19 miles.

Security	$200,000 00	cash.
10% hold-back	48,439 79	
Total	$248,439 79	

Value of plant not known.

Contract No. 20. O'Brien, Fowler & McDougall Bros. G.T.P. and 23·76 miles.

Security	$25,000 00	cash.
10% hold-back	18,324 58	
10% " G.T.P.	53,077 73	
Total	$96,402 31	

Value of plant not known.

Contract No. 21. J. D. McArthur. 246·6 miles.

10% hold-back to end April, 1909	$624,164 37
May estimate	305,048 57
Total	$929,212 94
	750,000 00
	$1,679,212 94

At the end of September last, the value of the plant on this work was estimated by the contractor at $734,317.84, and the value of supplies on line at $200,000. Since that date I believe a considerable amount of the sub-contractors' plant has been removed, but the contractor has put on additional engines and rolling stock which may leave the value of the plant now there $650,000, or say, with supplies, $750,000.

In regard to plant on the work, I may say the valuation of same is that given by the contractors, and it is not probable these amounts could be realized if such plant had to be sold.

HUGH D. LUMSDEN,
Chief Engineer.

MONTREAL, QUE., July 8, 1908.

Mr. HUGH D. LUMSDEN,
Chief Engineer,
Eastern Division, National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—Referring to our recent visit to the work on District 'B' east of the St. Lawrence River, our examination of classification as rendered at points visited, and our conversation regarding same, I hope to repeat in writing what I stated to you verbally: that we still vigourously protest to the classification as returned to date. For example:

The first cut we visited, station 7135 to 7142. Gravel cut with little or no ledge. Classification returned 7,900 yards solid rock, 12,100 yards of loose rock.

Station 7146 to 7150. Returned 13,000 yards solid rock, 9,200 yards loose rock.

These are loose rock cuttings containing many large boulders. My judgment is that the solid rock returned is double what it should be, 25 per cent being a liberal allowance.

The cuts, stations 7164 to 7167 and 7167 to 7170, are also heavily classified. Quite a large portion of the west end of these cuts should be returned as common excavation.

The gravel cut on stations 7175 to 7182 is returned as 8,000 yards loose rock and 12,000 yards common excavation. This is purely gravel cut. There may have ben a few small stones, which, if found in sufficient quantities might be termed loose rock, but certainly not more than 10 per cent at the outside. Classified as 40 per cent loose rock at present.

I am a little surprised in this, as in other cases, how any engineer could conceive of classification as returned unless the work was done in frost, and even this, in these cuts, should not change classification.

Stations 7085 to 7104. Classified, 7,200 yards solid rock, and 9,500 yards loose rock. With the utmost liberality I cannot see where over 20 per cent of this cut should have been classified as solid rock, and there should have been at least 10 or 15 per cent common excavation.

I take it that the above are fair samples of classification on this residency, if not on the entire division; in the aggregate you can readily see the effect upon the cost of construction.

For another example further west take the cut, Station 5940 to 5950. Estimated 44 per cent solid rock, 56 per cent loose rock. While there is a small amount of ledge in the bottom of the cut I should say 25 per cent solid would be ample, unless actual measurements of ledge and boulders have been taken. The other cuts visited in this vicinity are not so highly classified, though generally liberal.

The cut at stations 3880 to 3890 is mixed material, classified very high in both solid rock and loose rock.

The cut at stations 3844 to 3862 is classified 14,410 yards of solid rock and 3,720 yards loose rock. Cannot imagine how anything approaching the amount of solid rock can be found in this cut; would say that 50 per cent would be ample.

Station 3786 to 3825. Cut open at both ends. Clasification very high in solid and loose rock.

Stations 3775 to 3789. Seems heavily over-classified in solid rock.

Stations 3267 to 3277. Classified 9,140 solid rock, 2,860 loose rock, or 76 per cent and 24 per cent, 50 per cent of each would, I am confident, be liberal.

Stations 3239 to 3247. Classified 45 per cent solid rock, 55 per cent loose rock. While the quantities in this cut are not large, it is, in my judgment, classified out of all reason. I can see no solid in it and nothing to exceed 20 per cent of loose rock.

East of the crossing of the Quebec Central Railway we find a large amount of material borrowed from the sides of embankments, and although most, if not all, of this material has been ploughed and moved by slip or wheel scrapers, much is returned as loose rock. I am willing to admit that hard material is found in the bottom of these borrow pits, but little, if any, has been moved, and I cannot see how this material can be classified under our specifications. A sample of this classification is found between Stations 1155 to 1200. Between these points we find 457 yards of solid rock and 3,049 yards of loose rock. There is a small cutting between these points which possibly might have a little loose rock, although it did not so appear to me in going over the work.

Westerly from this point there is a large amount of borrowed material which we have not seen. I presume, however, that you will find a certain percentage of classified material, even where material has been ploughed with two or four horses, and moved in the ordinary way.

In the above notes some of the station numbers may not be correct. I had supposed that I could check same by profiles in this office, but I find that neither the station numbers or mile posts agree with those found in the field.

This question of classification has been under discussion since early in October last. You have now seen different parts of the work in progress both east and west of the St. Lawrence river on Section 'B,' also at different places on District 'F,' where objections have been made to the classification as rendered by your assistants, and are, therefore, in a position to know whether our objections are valid.

We are sure that the classification as rendered does not agree with our original specifications or your instructions to your engineers, dated January 30. We believe that much of the material returned as solid rock in mixed cuttings is considered to be, under your instructions, what you term 'conglomerate,' as shown on diagram marked No. 3, but I fail to find in any of the cuttings examined any material which should properly be classed under that head.

As matters stand to-day, none of our objections have received serious attention, or at least no apparent change has been made in estimates as returned since September last. Some of the sub-contractors have finished their contracts, and others will soon complete their work. We object to their being paid upon estimates as returned, and therefore desire to know, with the least possible delay, what action you propose in the matter.

H. A. WOODS,
Assistant Chief Engineer.

SESSIONAL PAPER No. 42a

(GRAND TRUNK PACIFIC RAILWAY.)

WINNIPEG, MAN., July 12, 1909.

Mr. P. E. RYAN,
Secretary, Transcontinental Railway Commission,
Ottawa, Ont.

DEAR SIR,—I am in receipt of your letter of June 25 and 26, referring to arbitration of matters in dispute between the Chief Engineer of the Transcontinental Railway Commission and myself in reference to the construction of the Eastern Division of the Grand Trunk Pacific Railway.

B. B. KELLIHER,
Chief Engineer.

OTTAWA, June 26, 1909.

E. J. CHAMBERLIN, Esq.,
Vice-President and General Manager,
Grand Trunk Pacific Railway,
Montreal, P.Q.

DEAR SIR,—By direction of the board, I have the honour to hand you herewith a copy of correspondence relating to the matters in dispute between the engineers of your company and the engineers of the commission referred for determination to the arbitration tribunal provided for under the National Transcontinental Railway Act and composed of Messrs. Schreiber, Kelliher and Lumsden, including a copy of a resolution passed by our board at a special meeting held at 11 a.m., on the 25th instant, and a copy of a letter dated the 25th instant sent by direction of the board to each of the three arbitrators.

P. E. RYAN,
Secretary.

Extract from Minutes of a meeting held by the Commissioners of the Transcontienntal Railway at Ottawa, July 14, 1909.

Honourable S. N. Parent in the chair.

The chief engineer reported verbally that it would be impossible to give an estimate of the amount of money involved in the disputes as to classification, owing to the fact that where cross-section notes of the engineers disagree with the present appearance of the work re-measurements will be necessary, and that the engineers who classified the work were not examined or requested to produce their books showing the monthly classification of the work as it progressed and that he is still of the opinion that the resident engineers who see the work from day to day, are in the best position to make the classification, if they are capable and honest; as far as their knowledge is concerned they are the best men, and everything being equal they are the best men to judge the work, seing it done day by day.

Certified correct.

P. E. RYAN,
Secretary.

July 21, 1909.

H. A. Woods, Esq.,
Asst. Chief Engineer, G.T.P.,
Montreal, Que.

Dear Mr. Woods,—This is to advise you that Mr. Gordon Grant has been appointed chief engineer by the government to replace Mr. Hugh D. Lumsden, whose resignation has accordingly been accepted, and entered at once upon the duties of his new position.

It is the desire of our board that Mr. Grant should go over the work without delay, commencing at District 'F.'

Under the agreement of January 10, 1908, signed by Mr. Hays, myself and our than chief engineer, you were named to look after matters concerning the eastern division, which arrangement was since carried out, as shown by the correspondence on file to date. In the above capacity, you have sent in certain objections which are on record.

We are of opinion, under the circumstances, that it would be desirable if you would accompany our chief engineer, who is to leave as soon as he can, on this tour of inspection, so as to judge of the work by yourself. Another important reason is that you will be able at the same time to form an accurate idea of what should be paid to the contractors on their monthly estimates, which we are anxious, as it is essential, not to unduly hold back. Our position in this respect is clearly defined in the agreement mentioned above.

Please give an immediate reply by wire as this is pressing.

S. N. PARENT,
Chairman.

Ottawa, July 21, 1909.

Gordon Grant, Esq.,
Chief Engineer.

Dear Sir,—The board directs that you will write to Mr. H. A. Woods, assistant chief engineer Grand Trunk Pacific Railway, Montreal, advising him of your intended trip of inspection to Districts 'F' and 'B' and request that he accompany you, so that you may have an opportunity of learning to what extent you can agree as to the matters in dispute in these districts.

It is understood that you are leaving almost immediately on this inspection trip and the commissioners consider it most important that Mr. Woods should accompany you, so that a perfect understanding may be reached between you as to any differences that will have to be arbitrated, so that such arbitration, if any, may proceed at the earliest possible date.

P. E. RYAN,
Secretary.

Ottawa, July 21, 1909.

H. A. Woods, Esq.,
Assistant Chief Engineer,
Grand Trunk Pacific Railway Company.

Dear Sir,—My predecessor in office of chief engineer of the Eastern Division of the National Transcontinental Railway before resigning stopped the payment of the estimates of the contractors in Districts 'F' and 'B' owing to his having differed with the engineers in those districts on the matter of classification. It therefore becomes necessary for me to immediately visit the work in dispute in these districts, to see for myself the classification which has been allowed.

SESSIONAL PAPER No. 42a

The work under the McArthur contract in District 'F' being of such pressing urgency, I propose visiting that district at once and I to-day informed the commissioners of my intentions in this respect. They then directed me to advise you of my intended trip, and as their agreement with your company dated January 10, 1908, is still in force, that I request you to accompany me, so that pursuant to that agreement we may go into this matter on the ground and if possible, adjust these disputes to our mutual satisfaction, and arrive at an understanding as to any difference that may have to be arbitrated so that such arbitration, if any, may be proceeded with without delay.

I need not point out to you the absolute necessity of straightening up matters in District 'F' so as to insure the completion of this necessary link between your western division and your Fort William branch, so that your company may be in a position to participate in the transportation of this season's crop.

As stated before, I intend to start at once to District 'F' and will therefore be glad if you will telegraph me a reply on receipt of this letter.

GORDON GRANT,
Chief Engineer.

MONTREAL, July 22, 1909.

GORDON GRANT, Esq.,
Chief Engineer N.T.R.,
Ottawa, Ont.

DEAR SIR,—I beg to acknowledge receipt of your favour of July 21st in which you advise that your predecessor, Mr. Hugh D. Lumsden, before resigning stopped payment of the estimates of the contractors in Districts 'B' and 'F' owing to his having differed with the engineers of these districts on the matter of classification, and that it becomes necessary for you to visit the work in dispute to see what classification has been allowed.

With reference to your visit to District 'F,' and your request that I accompany you, I wired you to-day as follows, which I now confirm:

'Just returned after ten days absence. Have engagements will prevent my leaving here before twenty-seventh. See letter mailed you to-day.'

In addition to previous engagements that prevent my leaving at once, I have to call your attention to the fact that our objections to classification on these districts are of long standing, and as an agreement concerning same could not be made, the matter was left to arbitration, as originally provided, the Chief Engineer of the Commission and the Chief Engineer of the Grand Trunk Pacific agreeing upon Mr. Collingwood Schreiber as the third arbitrator. The arbitrators have been over the line, and while their report has not been made, or at least has not been seen by the writer, I do not consider it advisable that I should visit the work and personally agree with you on the points which may have been taken under consideration by the board of arbitrators, and which might, to a certain extent, impair such report when made.

Under the circumstances, therefore, I do not feel that I can accompany you for the purpose stated, unless sanctioned by President Hays, who is now absent. I should, however, be pleased to accompany you over any part of the line when possible to do so, and where matters have not been left to arbitration, to go into them thoroughly with you, in the hope of a satisfactory settlement.

Please accept my hearty congratulations upon your appointment to the important position you now hold, and believe me,

H. A. WOODS,
Assistant Chief Engineer Grand Trunk Pacific Ry.

Ottawa, July 24, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

Sirs.—I herewith submit for your information copy of my letter dated the 21st instant to Mr. H. A. Woods, assistant chief engineer of the Grand Trunk Pacific, and his reply dated the 22nd, which speak for themselves.

Mr. Woods says, 'I have to call your attention to the fact that our objections to classification on those districts are of long standing, and, as an agreement concerning same could not be made, the matter was left to arbitration.' While I am aware that Mr. Lumsden and Mr. Woods last summer went over part of District 'F,' I am not aware that they attempted to adjust, or did adjust any matters in dispute. Therefore, on assuming the position of chief engineer, I at once communicated with Mr. Woods, who is the man authorized by the Grand Trunk Pacific Railway Company to pass on and adjust such matters, but Mr. Woods, as you see by his letter, declines to act, unless sanctioned by President Hays. President Hays, I believe, is not now in Montreal; will be there next week. Therefore, I would respectfully suggest that you communicate with him, so that he will authorize Mr. Woods to accompany me over the work, and act in the position previously agreed on.

As District Engineer Poulin will be here on Monday, and as it is important that I at once go over the work, I propose to leave here onTuesday, the 27th instant, and go over the line with the district engineer and his assistants, accompanied by the contractor, or such representative as he may select; also the sub-contractors concerned.

Notwithstanding the urgency of the case, it is important, and would be a source of great satisfaction to me, to have Mr. Woods along, acting in the capacity assigned him under the agreement dated January 10, 1908, I am prepared to wait a few days, so that you can communicate with President Hays, and, if possible, arrange for Mr. Woods to accompany me.

GORDON GRANT,
Chief Engineer.

July 22, 1909.

Chas. M. Hays, Esq., President,
Grand Trunk Pacific Railway Company,
Montreal, Que.

Dear Mr. Hays,—Following the resignation of chief engineer Lumsden, the Government has apointed his successor in the person of Mr. Gordon Grant, who has now entered upon his new duties.

In view of the above change, the tribunal of arbitration recently instituted under clause 7 of the schedule to the N. T. Ry. Act becomes dissolved.

The work is one that should not be unduly deferred, and we are anxious that it be proceeded with at an early date. Our chief engineer will soon go over all parts of the line where construction is going on. It would be advisable that Mr. Woods accompany him on this trip, and I have just written him to that effect.

Before another board is formed to determine the matters in dispute, I would like to make a suggestion which, if agreed to,should serve a practical purpose, it is our belief, judging from past experience. On this ground I feel confident it will receive your prompt and earnest consideration.

All the monthly estimates of our contractors, in conformity with the special agreement signed by us and Mr. Lumsden on 10th January, 1908, are submitted to your assistant chief engineer who must file promptly his objections on behalf of the Company. They are then considered, and, if possible, disposed of by the above engineer

and our own. When they fail to agree, as it seems to have been the rule so far, the differences must be settled by arbitration between the two chief engineers and a third arbitrator, if necessary.

Up to that stage your chief engineer has had nothing to do with the supervision of our work, which is looked after entirely by his assistant. It follows that your Company had recognized the fact that the latter could exercise this supervision more conveniently than his chief, Mr. Kelliher, who has to direct your operations in the west, being out on the line most of the time, as far even as the Pacific coast, and consequently not within reach.

According to the Act, however, only your chief engineer can represent your company on the arbitration tribunal which is to pass upon the question in dispute. The result is that Mr. Woods, although much more familiar with the work than his superior officer, having gone over it personally before, or at least received regular reports from the engineers on each district, must step aside and be replaced in the final adjustment by Mr. Kelliher, who cannot have had the same opportunity of keeping in touch with the work, and whose time besides appears to be exceedingly limited. Such an arrangement can easily lead to confusion, loss of labour and time, and, once put to a practical test, we have been in a position to see its defects. Referring to the subject, Mr. Lumsden wrote in his letter of resignation that 'this arbitration might have been proceeded with more than eight months ago but for the delay on the part of the Grand Trunk Pacific."

Unless some officials are to blame, it is clear that the system must be faulty, and should be changed somehow or other.

A simple way of overcoming the difficulty, it seems, would be to place in Mr. Woods the property authority, under the Act, to serve in the capacity of arbitrator for your company, as its chief engineer, by a resolution of your board appointing him to be such in respect of the supervision of the Eastern Division, which he has practically exercised alone so far.

There are important reasons, as you know, why disputed classification and all other such matters that may arise from time to time should be looked into by the arbitrators without delay and in a thorough manner. On all sides nothing can be gained by allowing these questions to drag on needlessly or to be taken up without method.

It is easier, of course, to settle diffeerences of this character soon after they are raised than six months or a year later. Public opinion is apt to be suspicious, and might be led to believe, as attempted already by some newspaper articles, that there must be a tacit understanding to let these matters stand. Such a state of affairs, moreover, tends to create uneasiness among the contractors who have let sub-contracts and do not know where they are at pending an adjustment. It surely must have some effect on the work, which we all desire to be vigorously pushed forward.

After thinking this matter over, perhaps you may find a better plan to suggest which would give the same result. In that case, I shall be thankful if you will be good enough to submit it at your earliest convenience.

S. N. PARENT,
Chairman.

GRAND TRUNK PACIFIC RAILWAY

Hon. S. N. Parent,
Chairman, N. T. R. Commissioners,
Ottawa, Ont.

Montreal, Que., July 22, 1909.

Dear Mr. Parent.—I desire to acknowledge receipt of your favour of the 21st inst., in which you inform me that Mr. Gordon Grant has been appointed by the government as chief engineer of the Eastern Division of the National Transcontinental

Railway, replacing Mr. Hugh D. Lumsden, whose resignation has been accepted, and that Mr. Grant has entered at once on the duties of his new position.

I note also that it is the desire of your board that Mr. Grant should go over the work without delay, commencing at District 'F,' and that you consider it desirable that the writer accompany your chief engineer on this tour of inspection, to be made immediately, so as to be able to judge personally the character of the work.

In reply I regret to say that I have just returned after an absence of ten days, and that prior engagments will prevent my leaving here before the 27th. Moreover, in view of the fact that objections have been made by this company with reference to the character of the work as returned by district engineers, and that these objections have been referred to a board of arbitration consisting of chief engineers Lumsden and Kelliher, and Mr. Collingwood Schreiber, representing the government, who have visited the work and whose report has not yet been made, or at least has not been seen by the writer, I do not consider it advisable that I should visit the work and personally agree with your chief engineer upon points which may have been taken under consideration by the board of arbitrators, and which might, to a certain extent, impair such report when made.

Under the circumstances, therefore, I do not think that I can agree to accompany your chief engineer for the purpose mentioned, unless sanctioned by President Hays, who is now absent but will return within a few days.

H. A. WOODS,
Assistant Chief Engineer.

GRAND TRUNK PACIFIC RAILWAY.

July 28, 1909.

HON. S. N. PARENT,
Chairman, Transcontinental Railway Commissioners,
Ottawa, Ont.

DEAR MR. PARENT,—I have yours of July 22nd and note the appointment of Mr. Gordon Grant as successor to chief engineer Lumsden. This, however, has no bearing on the question of the matters which were submitted to the Board ofArbitration, of which Mr. Lumsden was a member, because I understand before his resignation the board had practically arrived at a determination of the matters reviewed by them up to that date, and in fact that the arbitrators, or a majority of them, are now prepared to make their report as far as the work had proceeded up to the time of Mr. Lumsden's retirement.

I do not consider that it will be necessary for Mr. Kelliher to again go over that portion of the work reviewed by Messrs. Schreiber, Lumsden, and himself. If it is now desired to proceed with the arbitration of matters as yet unadjusted, and it is your intention to substitute Mr. Gordon Grant for Mr. Lumsden on such arbitration, that is, of course, quite in order.

Referring to what you say about the memo. of agreement of date January 10th 1908. This simply provides that the assistant chief engineer shall promptly file objections to estimates which, if not then satisfactorily adjuted between himself and the chief engineer of the Commissioners, are to be referred for decision of the arbitrators as provided for in the Act, and it therefore, at least by implication, would prevent assistant chief engineer Woods acting as one of the arbitrators in case of failure on the part of himself and the chief engineer of the Commissioners to agree.

I do not agree with you in the idea that because our chief engineer has not had direct control of the work on the Transcontinental Railway, he is disqualified from being a proper representative of this Company on the Board of Arbitration. While Mr. H. A. Woods, his assistant, is immediatel in charge of the work, the jurisdiction and control of chief engineer Kelliher is quite as conclusive as that of your own chief

engineer. I, therefore, prefer to let matters remain as they are at present, and as to the prompt disposition of everything coming up, there is no reason from the standpoint of the Grand Trunk Pacific, why they should not be proceeded with promptly. I think you will find on examining the records that whatever delays there may have been heretofore in proceeding to arbitration of matters in dispute, they have been as often chargeable to the Commission as to the officers of the Grand Trunk Pacific Railway.

CHAS. M. HAYS.

MONTREAL, QUE., July 28, 1909.

Mr. HUGH D. LUMSDEN,
Chief Engineer, Eastern Division,
National Transcontinental Railway,
Ottawa, Ont.

DEAR SIR,—In a recent letter from District Engineer Mann he writes that:

'The classification is undoubtedly going from bad to worse, even on the parts of the work you saw when out with Mr. Lumsden.'

He also reports that at points along the line where steam shovels are being used, the yardage is being returned at train haul price, regardless of the distance from line at which borrow material is being taken. This is not in accordance with the specifications, which clearly state:

'The work will be estimated so as to make the least cost.'

Complying with this clause, no train haul should be allowed on District 'F' where material borrowed is within 2,700 feet haul. Mr. Mann gives, as instance of train haul, among others, Stations 83 and 93, Mile 134, with the following remark:

'Here are borrows being put in with scrapers without the use of a single car or a foot of track, though that would really make no difference, and it is returned as *Train Fill.* It must be remembered that under no circumstances can the price of this material by any possible stretch of the imagination be in any other way figured up to a price of 52c. per yard. The material is good, and the haul moderate.'

Another point to which Mr. Mann makes objection is the returning of dry masonry as third class. He give instances at stations 2618 and 2628-60, stating that these culverts dry, and had then been plastered on the outside and inside with mortar, and returned as third class. One of these culverts was under construction when he saw it, and others had settled so that the plastering had fallen away showing the entire lack of any mortar in the interior. He further states that some of these culverts were returned dry in former estimates and were later transferred to third class.

I have no doubt that Mr. Mann has taken his objections up with District Engineer Poulin, but I think it proper to call your attention to the same, as you may have overlooked these matters in passing estimates.

H. A. WOODS,
Assistant Chief Engineer.

31st July, 1909.

CHAS. M. HAYS, Esq., President,
Grand Trunk Pacific Railway Company,
Montreal, Que.

DEAR MR. HAYS,—After reading your letter of the 28th instant, a few remarks suggest themselves to me as we disagree on several points, and, in places, you seem to have taken a meaning from what I said that certainly was not in my mind.

The sole purpose of my suggestion was to simplify matters, save time in the adjustment of differences, and thus avoid difficulties which arise from the present sys-

tem. As a matter of fact, it is otherwise immaterial to us which of Mr. Kelliher or Mr. Woods will exercise the supervision and sit as arbitrator when there are difficulties to settle.

It never occurred to me to contest the right of Mr. Kelliher, under the Act, to act in the last-named capacity. I merely wanted to show that, in practice, the method appeared to be inconsistent, and gave just cause for criticism. Our idea, since Mr. Woods, as arranged, looks after all this end of the work, that he would be in a better position than his chief to represent your company in arbitration proceedings. There is nothing in the agreement, so far as we can see, to prevent this being done, for the reason that in regard to the filing of objections he is taking the place of his superior officer simply as a matter of convenience, from the company's point of view.

Strong objection was taken by us to the manner in which the arbitrators conducted their proceedings. A resolution of our board, founded on serious complaints, is sufficiently explicit in that respect. I inclose a copy of the whole file. The same was sent to Mr. Chamberlin on the 26th of June, but it will be more convenient to have one in your office for ready reference. Letters from the contractors and our district engineers are particularly important to note. In view of these facts, we could not possibly accept a report from the arbitration tribunal, not even if they all agreed or had not since ceased to exist as such. The ground they covered will therefore have to be gone over again and all available information secured, which was not done in the first instance.

Let me say here that Mr. Lumsden's resignation distinctly applied also to his duties as arbitrator, the latter being part of his office. It was the proper course to take. Then it is not merely in order, but quite necessary that he should be replaced in future proceedings, which means that the old board is dissolved and a new one has to be formed.

Our chief engineer left a few days ago on a tour of inspection, covering district 'F' first. On his return he will communicate at once with Mr. Kelliher in regard to the adjustment of pending differences. Before they can proceed to determine them, a third arbitrator must be agred upon, which, if possible, will be Mr. Schreiber, I should think. Public interest demands that no efforts should be spared to have a fair and complete arbitration. All objections raised must therefore be looked into with the greatest possible care, and the various parties concerned, including contractors, should be heard. So that when a decision is rendered the government may be reasonably protected against future claims from contractors, as they will have been given ample opportunity to show cause and bring evidence in support of their views.

S. N. PARENT,
Chairman.

OTTAWA, August, 24, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS.—As you are aware, my procedecessor, Mr. Lumsden refused to sign the progress estimates for the months of May and June, on District 'F,' and for the month of June on District 'B' alleging that his instructions in the matter of classification, &c., had been ignored by his staff. It became necessary for me therefore to go over that portion of District 'F' inspected by Mr. Lumsden, and satisfy myself, from a thorough personal inspection of the work whether his contentions were correct or not that his instructions had been ignored.

With regard to my inspection of District 'F' I beg to report as follows:—

In the matter of overbreak in rock cuttings. I am of the opinion that more overbreak has been returned than is customary on railway construction in Canada, and have notes of all rock cuttings in this regard.

In the matter of classification, I have also notes made in any of the cuttings where my predecessor's interpretation of the specifications, together with his explanatory blue print diagram have in my opinion, been misunderstood or misinterpreted by some of the engineers on this work.

As to Mr. Lumsden's allegation that his instructions had been ignored, all the engineers I have seen deny this most emphatically, stating that they have followed to the best of their ability and judgment Mr. Lumsden's interpretation of these specifications and explanatory diagram with regard to classification dated January, 1908, and which was also approved by Mr. Woods, assistant chief engineer of the Grand Trunk Pacific Railway Company.

The securities held by the Commissioners as at June 1, 1909, for the satisfactory performance of the McArthur contract, as reported by my predecessor, are as follows:

Contract No. 21—J. B. McArthur, 246.6 miles.

10 per cent hold back to end of April, 1909	$624,164 37
May estimate	305,048 57
Estimated value contractor's plant and supplies	750,000 00
Total	$1,679,212 94

From what I know from personal investigation of conditions existing on that part of District 'F' to which Mr. Lumsden took exception, I will approve the payment in full of McArthur's estimate for May and 75 per cent of June estimate, but will withthold further payments until such time as I can figure out from my notes exactly how much is involved in the deductions for excess overbreak and over classification by the engineers, when I will submit for your information a detailed report covering each cutting where deductions have been made, either in the matter of overbreak or over classification.

With respect to the O'Brien, Fowler & McDougall contracts in District 'F' the original securities are still on deposit, and the work is not nearly so far advanced. Under the circumstances, I am strongly of the opinion that the payments of their estimates should never have been stopped, as ample opportunity will offer for effecting any readjustments or revisions that may be found necessary before final payments will have to be even considered and no objections had been filed by the Grand Trunk Pacific to the work covered by these contractors. I therefore propose approving the estimates of these contractors at once.

With regard to District 'B.' I have a personal knowledge of some of the work on this district, and while some of the cuttings, in my opinion may be over classified, I am satisfied that the amount involved will not reach the amount of the estimates and securities held, which latter at June 1, 1909, were reported by my predecessor as follows, viz.:—

Contract No. 7—M. P. & J. T. Davis—53·6 miles—

Deposit	$100,000 00
10 per cent of progress estimates	82,001 57
Total	$182,001 57

Value of plant unknown.

Contract No. 8 (east)—M. P. & J. T. Davis—149·12 miles—

Deposit	$225,000 00
Balance of 10 per cent hold back	135,850 18
Total	$360,850 18

Value of plant unknown.

Contract No. 9 (west)—M. P. & J. T. Davis—49·8 miles—	
Deposit	$284,794 00
Balance of 10 per cent hold back	37,500 31
Total	$322,294 31
Value of plant unknown.	
Contract No. 10—Macdonnell & O'Brien—100·1 miles—	
10 per cent retained	$293,534 89
Their valuation of plant	500,000 00
Total	$793,534 89
Contract No. 11—G. T. P. Ry. Co.—466·4 miles—	
Security	$ 75,000 00
10 per cent hold back	136,899 15
Total	$211,899 15
Value of plant unknown.	

In order to assure the progress of the work, and as my inspection of District 'F' took much longer than I anticipated, and the same may result in district 'B,' I will approve the payment of 75 per cent of the estimates for June in this district, pending the completion of my inspection of the district, which I propose making at once.

GORDON GRANT,
Chief Engineer.

OTTAWA, August 26, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

SIRS,—For your information, I herewith hand you copy of a letter I have to-day written to the chief engineer of the Grand Trunk Pacific Railway Company.

GORDON GRANT,
Chief Engineer.

August 26, 1909.

B. B. KELLIHER, Esq.,
Chief Engineer Grand Trunk Pacific Railway,
Winnipeg, Man.

DEAR SIR,—Referring to the objections filed on behalf of the G.T.P. Company by its Assistant Chief Engineer, Mr. H. A. Woods, to the classification of certain cuttings and the allowances made to contractors for overbreak in District 'F,' which were submitted by yourself, acting for the Grand Trunk Pacific Railway Company, and my predecessor, Mr. Hugh D. Lumsden, acting for the Commissioners of the Transcontinental Railway, to a board of arbitrators composed of yourself, Mr. Lumsden, and Mr. Collingwood Schreiber, C.M.G., for settlement.

I am unable to find that my predecessor, Mr. Lumsden, left any notes, or a record of any kind whatever, of the proceedings of the arbitrators, or the results obtained or the conclusions, if any, reached by them; but from a perusal of the correspondence, I understand that he resigned his position as arbitrator (as well as that of chief engineer) before the completion of the work of the arbitrators; also

that the Commissioners of the Transcontinental Railway objected to and protested against the proceedings of the arbitrators as being improper and illegal for the following reasons, viz.:

(a) That they were based in whole or in part on a draft agreement dated May 14, 1909, which had been rejected and which had no existence in fact;

(b) That the examination of the work was of a hasty, insufficient and superficial character;

(c) That the engineers on the line who classified the work were not afforded a sufficient hearing and an opportunity of presenting evidence;

(d) That the contractors were not afforded an opportunity of showing cause;

and further, that the commissioners insisted, in the public interest, that the proceedings of the arbitration tribunal should be exhaustive, final and conclusive; should cover all the objections filed on behalf of the Grand Trunk Pacific Railway Company, and that the report of the arbitrators, when made, should be supported by substantial evidence, including details of quantities, etc., which would safeguard the position of the commissioners in any litigation which might arise with the contractors as a result of any action which might follow the report of the board of arbitrators.

The arbitrators, not having completed their work when Mr. Lumsden resigned as arbitrator and chief engineer of the eastern division of the National Transcontinental Railway, it follows that the arbitration tribunal of which he was a member became *ipso facto* dissolved, and that, consequently, the matters considered by the arbitration tribunal, when properly and fully constituted, will now have to be reconsidered by a board of arbitrators composed of yourself, as chief engineer of the Grand Trunk Pacific Railway Company, the undersigned as chief engineer of the eastern division of the National Transcontinental Railway, and a third arbitrator to be agreed upon by us.

My first action on taking up the duties of my present position was to write to Mr. H. A. Woods, assistant chief engineer of the Grand Trunk Pacific Railway Company (who is the official designated by agreement between the commissioners and the Grand Trunk Pacific Company to file with the chief engineer of the commissioners objections, if any, on behalf of the company, to the contractors' monthly estimates), advising him of my intention to inspect the work in dispute, firstly, in district 'F,' and, secondly, in district 'B,' requesting that he accompany me, so that we might, if possible, adjust the matters in dispute in a mutually satisfactory manner and arrive at an understanding as to any differences that might have to be arbitrated, so that such arbitration, if any, might be proceeded with without delay. This Mr. Woods declined to do.

The reasons for my so acting seem to me to be perfectly obvious, but it may be perhaps as well that they be clearly stated herein.

The chief engineer of the commissioners is vested with full authority to rectify at any time any errors made by his engineers on the work, so that their returns will comply exactly with his views with respect to matters of classification, overbreak and every other item included in the contracts for construction. Until, therefore, he has personally inspected the work, and either approved the returns made by his subordinates on the work, or rectified them so as to bring them in harmony with his views, and consulted with the properly authorized representative of the Grand Trunk Pacific Company so as to ascertain if they can agree, or must disagree, there can be nothing to arbitrate.

Notwithstanding the position taken by the assistant chief engineer of the Grand Trunk Pacific Company with respect to my request, I considered it my duty to make a personal inspection of the work in district 'F' to see for myself the classification and overbreak (the two matters covered by the objections filed by Mr. Woods) which had been allowed by the engineers in that district, and to ascertain if, in my judgment,

the classification allowed strictly complied with the interpretation of the clauses of the specifications made in January, 1908, by my predecessor, Mr. Lumsden, and concurred in on behalf of the Grand Trunk Pacific Company by Mr. H. A. Woods, the assistant chief engineer of the company.

I am indeed quite unable to understand why my predecessor, Mr. Lumsden, did not take a similar course before submitting to arbitration the matters of classification and overbreak, with respect to which he could obtain an adequate personal knowledge only by such personal inspection. Had such a course been adopted, it is quite possible that there might have been no need for arbitration.

I have now completed a thorough personal inspection of the work under the McArthur contract in district 'F,' and I am of the opinion that, in the matter of overbreak in rock cuttings, more overbreak has been returned than is customary on railway construction work done in Canada. I have notes of all rock cuttings in this regard, and the returns of the engineers in the field will be revised to meet my views in this respect.

In the matter of classification, I have taken notes of all cuttings where, in my judgment, the approved interpretation of the specifications has been misunderstood or misinterpreted by some of the engineers on the work, resulting in over-classification. In all such cases provision will be made so as to bring the returns within what, in my judgment, will constitute a strict compliance with the interpretation of the classification clauses of the specifications made in January, 1908, by my predecessor, Mr. Lumsden, and concurred in by the assistant chief engineer of the Grand Trunk Pacific Company, Mr. H. A. Woods.

These revisions will be made at once, and I think it is my duty and yours, that we should now together proceed over this work with a view to ascertaining if we agree or disagree as to the work as it now stands. It may be that we will agree in which case there will remain nothing to arbitrate. If there be any matters in regard to which we cannot agree, then I am of the opinion that the public interest and the interest of the Grand Trunk Pacific Company will be best served by our immediately ascertaining what these matters may be, and submit them to abritration, as provided for by the National Transcontinental Railway Act, without unnecesary delay.

I will therefore be glad if you will advise me at once if you will so accompany me and when, or in the alternative, please submit to me the name of a third arbitrator.

GORDON GRANT.
Chief Engineer.

OFFICE OF THE MINISTER OF RAILWAYS AND CANALS,
OTTAWA, August 31, 1909.

HON. S. N. PARENT, K.C.,
Chairman,
Transcontinental Railway Commission,
Ottawa.

Dear Mr. PARENT,—As I was leaving for Europe some time ago the resignation of the chief engineer of the commission, Mr. Lumsden, was received, and I left it with my colleagues for consideration. I find on my return that in his letter of resignation Mr. Lumsden intimated that he had lost confidence in certain of his staff.

I have no doubt that this intimation is unnecessary, but wish to emphasize the Government's attitude in this matter. Should it be found that any member of the staff has been dishonest or wilfully negligent in the performance of his duty, he should be summarily dealt with.

What you desire and what we all desire is justice to all parties and the fullest protection of the public interest. Any employee who has forgotten this, or has failed to act on this principle cannot be retained for a moment.

GEO. P. GRAHAM.

SESSIONAL PAPER No. 42a

OTTAWA, September 2, 1909.

The Honourable
GEO. P. GRAHAM, P.C.,
Minister of Railways and Canals.

DEAR MR. GRAHAM,—The views expressed in your letter of the 31st ultimo coincide exactly with our own, and I need hardly say that we are prepared at all times to act along these lines in the matter of our staff and any other within our control which might affect public interest.

Should any reasonable proof be brought that employees in our service had been guilty of serious negligence or wrong-doing, you can rest assured that the Commissioners would deal prompt justice, as we have done already in several cases.

It is not a vain word to say that our engineers in the field can bear comparison with those on any other railroad. Most of them have been connected with the N. T. C. Ry. since its earliest stage, when comprehensive surveys had to be carried on from one end of the year to the other, through a rough and distant region, amid great hardships. They are men of good professional standing and experience, appointed by, or with the approval of Mr. Lumsden, and there is nothing before us to show that a single one of those retained proved deficient or dishonest, otherwise it would have been his duty to call to account the men in whom he had lost confidence, or at least to report them with the facts to our Board. As no such step was taken by him, it must be inferred that the real point at issue lay elsewhere.

From a consideration of these facts and of what took place before he resigned, I should incline to understand the intimation you refer to as meaning that Mr. Lumsden had lost confidence in his ability to direct his men and exercise the authority incumbent on his position, rather than in anyone's integrity or faithfulness. The lack of further explanation, under the circumstances, should not be enough to condemn engineers who had apparently, up to that moment, been found worthy by him of the trust placed in them.

Still, we did not wish to leave room for the least doubt. When Mr. Grant assumed his new office, it was therefore thought proper to have him make at once a direct and careful enquiry into the situation to see whether there could have been anything wrong.

As you are now aware, Mr. Lumsden came to resign after our Board had taken strong exception to the manner in which the arbitrators had conducted their proceedings. The ground covered by them was sections in Districts 'F' and 'B,' which were taken in an advanced state, if not partly completed.

Having been on the work several times while it was in progress, as inspecting engineer, there is no doubt that Mr. Grant was better acquainted with its character and aspects than his predecessor. There is nothing, however, in Mr. Grant's opinion, to show that the imputation cast by Mr. Lumsden is justified. His report on District 'F,' of which I enclose a copy, brings this fact out beyond doubt. He is now making a similar inspection in District 'B,' and I shall be pleased to let you know the result of it as soon as put before our Board in writing. A thorough investigation has not, in the first case, revealed any actions on the part of the engineers to show that they had not acted in good faith, to the best of their ability and judgment. If some figures need revision, it is the duty of the chief engineer to correct them, but it does not follow that there has been any deliberate and calculated disregard of his instructions.

For the safeguard of public interest as well as our own protection, every care has been taken so far, and will be in the future, to have the closest supervision exercised over all employees from head down. The appointment of a general inspecting engineer and later of residency inspectors is proof that our constant aim has been to render this control as effective as it could possibly be made.

A letter from Chief Engineer Grant to his colleague, Mr. Kelliher, of the G.T.P., in regard to disputed classification, written on his return from the first part of his

trip, may further help you to understand clearly the position, as it has a direct bearing on this matter. A copy of it is therefore attached, together with copy of some recent correspondence between Mr. Hays and myself relating to the same subject.

S. N. PARENT,
Chairman.

OTTAWA, Sept. 7, 1909.

Honourable GEO. P. GRAHAM, P. C.
Minister of Railways and Canals,
Ottawa.

DEAR MR. GRAHAM,—A copy of some correspondence has been sent you in connection with the proceedings of the arbitrators, viz: Messrs. Kelliher, Schreiber and Lumsden, in re classification and overbreak on the eastern division of the National Transcontinental Railway.

I now send for your file a copy of the correspondence which preceded that already sent you, and a copy of that which has taken place subsequently.

P. E. RYAN,
Secretary.

(Office of the Minister of Railways and Canals.)

OTTAWA, 9th September, 1909.

P. E. RYAN,
Secretary, Transcontinental Railway Commission,
Ottawa.

DEAR SIR,—My minister is in receipt of yours of the 7th instant inclosing copy of correspondence preceding and subsequent to that already sent in *re* Proceedings of the Arbitrator, for which I am directed to thank you.

C. B. ROBINSON,
Private Secretary.

OTTAWA, September 14, 1909.

The Commissioners of the Transcontinental Railway.
Ottawa, Ont.

DEAR SIRS,—With regard to my recent trip of inspection on the Macdonell & O'Brien contract on District 'B,' mile 50 to 150, west of the Quebec bridge, and from mile 150 to mile 163 on the Grand Trunk Pacific contract, which contract extends from mile 150 to mile 200 west of the Quebec bridge, I may say that the deduction I propose making on the 13 miles of the Grand Trunk Pacific contract for excess overbreak and over-classification will be approximately $15,000, and on the 100 miles of the Macdonell & O'Brien contract approximately $272,000.

As this is a large sum of money, the deduction of which at any one time will seriously embarass the contractors, and as we, in any cases, have ample protection by the amount of our 10 per cent drawback, I propose to pay the 25 per cent held back on the Grand Trunk Pacific estimate for June, pay the July estimate in full, and deduct the $15,000 from the August estimate.

With regard to the $272,000 to be deducted from the Macdonell & O'Brien contract, I will deduct the 25 per cent still held back on their June estimate, pay the July estimate in full, deduct the total estimate for August, and deduct 50 per cent of the September estimate, balance to be deducted from the October estimate.

Considerable remeasurements will have to be made on some residences before the overbreak and over-classification can be arrived at and deducted, but in some cases I have deducted a lump sum pending the remeasurement, so that the deductions I have made may be less after the remeasurements.

I also beg to inform you that, so far as District 'B' is concerned, I have since the 1st of last June inspected, with the exception of some sand cuts, all the work from the Quebec bridge, mile 0, west to the 225th mile, and may say that, from mile 0 to mile 50, I have no fault to find with the classification that has been allowed, and from mile 163 to mile 225 the classification that has been allowed is also correct, and no excess overbreak has been returned on that part of the line.

To-morrow morning I leave for Quebec to complete my inspection of that district, that is, from the Quebec bridge easterly to the New Brunswick boundary, a distance of 200 miles. This will take me three weeks or more.

In regard to the progress estimates on the contracts in District 'B' east of the Quebec bridge, I will release the 25 per cent still due on the June estimates, and also sign the July estimates, so that any deductions that may have to be made can be deducted from the August estimates, and, if necessary, also from the September estimates. The estimates for the contracts Quebec bridge to mile 50 westerly I will pay to date. There are no complaints on these contracts and there never has been any. This same applies to the contract mile 200 to mile 300. There are no complaints now, nor have there ever been any.

GORDON GRANT,
Chief Engineer.

OTTAWA, Sept. 14, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS.—With regard to my recent trip of inspection on the J. B. McArthur contract in District 'F,' I may say that the deductions I propose making for over returns in the matter of overbreak and overclassification will be approximately $370,000, but it may be less after remeasurements have been made.

Consequently, I propose signing J. D. McArthur's progress estimates to date, after deducting the above stated amount from them.

I am sending a report to the district engineer who will have his resident engineers deduct the above amount in detail from their estimates. I may say that in some cases where the measurements were not finally made in uncompleted cuttings, and where, in my opinion, over-classification had been allowed, I simply deducted a lump sum, and when the final measurements are made the district engineer will adjust the matter in accordance with the rate of classification we allowed to allow.

GORDON GRANT,
Chief Engineer.

September 15, 1909.

E. J. CHAMBERLIN, Esq.,
Vice President and General Manager,
Grand Trunk Pacific Railway Co.,
Ottawa, Ont.

Dear Mr. CHAMBERLIN,—On receipt of your letter of even date, I directed our Chief Engineer Mr. Grant, to see Mr. Schrieber at once and find out whether he would be prepared again to act as third arbitrator of matters in dispute upon which our two engineers might fail to agree. In the event of Mr. Schreiber's acceptance, Mr. Grant is to wire immediately to Mr. Kelliher so that the latter may arrange to be in Ottawa

and sign the required joint letter without delay. From here the three gentlemen can then proceed together to go over the work in District 'F.' Will you kindly instruct Mr. Keliher by telegram accordingly?

As a result of our exchange of views this morning, it is now fully understood that the two Chief Engineers are to discuss all differences on the ground as they go along. Whenever these cannot be disposed of by mutual accord, Mr. Schreiber will be called in, and the questions at issue passed upon by the three of them sitting as an arbitration tribunal. In order that the proceedings may be exhaustive, as desired evidence and witnesses can be produced by each side in support of its contentions.

S. N. PARENT,
Chairman.

GRAND TRUNK PACIFIC RAILWAY,
OTTAWA, September 15, 1909.

HON. S. N. PARENT,
Chairman, Transcontinental Railway Commission,
Ottawa, Ont.

DEAR SIR,—Referring to conversation had with you to-day relative to Arbitration Committee.

We are ready to have the Commission go on with their examination, and consent to their re-examining matters complained of and looked into by the former Commission consisting of Mr. Collingwood Schreiber, third arbitrator, Mr. Hugh D. Lumsden, Government Engineer and Mr. B. B. Kelliher as chief engineer of the Grand Trunk Pacific.

I presume this committee will start their examination from Winnipeg and work east to Moncton.

Mr. Kelliher is now in Winnipeg, and will be ready to start any day which will suit the convenience of Mr Schreiber and Mr. Grant. Will you kindly advise me as early as possible when Mr. Grant and Mr. Schreiber will be ready to start, so that we may arrange the affairs of our engineering department accordingly.

We trust that this examination will be very thorough and will be continued over the entire line, taking up and settling all matters under question.

It would be the wish of the Grand Trunk Pacific Railway that Mr. Schreiber be appointed permanent arbitrator to decide any matters which might come up between Mr. Kelliher and Mr. Grant at any future time after this present examination is completetd. In that way it would avoid any delays in appointing and getting another commission into the field.

E. J. CHAMBERLIN,,
Vice President and General Manager.

GRAND TRUNK PACIFIC RAILWAY.
MONTREAL, September 18, 1909.

HON. S. N. PARENT,
Chairman, Transcontinental Railway Commission,
Ottawa, Ont.

DEAR SIR,—Your letter of the 15th instant received. I cannot see that there is any necessity for a further joint letter appointing Mr. Schreiber to act as third arbitrator. We have already the letter of March 22, 1909, signed by the Chief Engineer of the Transcontinental Railway and the Chief Engineer of the Grand Trunk Pacific Railway selecting Mr. Schreiber to act as third arbitrator, and the consent of Mr. Schreiber to act in that capacity endorsed thereon. This is all that is required by clause 7 of the agreement with the government. The resignation of Mr. Lumsden

does not void the official acts performed by him while acting as Chief Engineer of the Commission. Mr. Grant simply succeeds Mr. Lumsden as chief engineer, but that does not render necessary the re-performance of acts that have already been regularly performed by his predecessor.

I am quite willing as you propose and as mentioned in my former letter, that the arbitrators should go over all questions in dispute from the beginning, letting the two engineers discuss all differences on the ground as they go along and where they cannot agree call in Mr. Schreiber.

You are anxious that these proceedings should be binding upon your contractors, and I would therefore suggest that the three arbitrators before commencing their duties should take an oath of office, as is usual in all arbitration.

Inasmuch as you propose that District 'F' be first taken up, it will be more convenient if Messrs. Schreiber and Grant proceed to Winnipeg, where they will meet Mr. Kelliher and start from there. If you will let me know when Mr. Schreiber and Mr. Grant can attend, I will arrange to have Mr. Kelliher on hand when they arrive.

E. J. CHAMBERLIN,
Vice President and General Manager.

P.S.—Please address any further communications to me at Winnipeg.

E. J. C.

OTTAWA, Sept. 20, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS.—With reference to my letter of the 14th instant *re* my recent inspection of District 'F.' and in which I stated that I was deducting $370,000 from the progress estimates now due Mr. McArthur. Since writing that letter, I have revised my figures, and the amount to be deducted now is $359,488.96, and my construction accountant has since informed me that Mr. Lumsden had previously deducted $140,086.80 from McArthur's March estimate, and $17,000 from the April estimate, but for what reason I do not know, though I presume it was for overbreak, but he has left no record or memorandum showing from what residency, subcontractor or cutting he wished the above amount deducted.

Consequently, as I am satisfied that, for the present purposes, and until the arbitration has taken place, the above mentioned amount is sufficient to hold back, I have signed McArthur's estimates to date, after deducting the $359,488.96, less the amount previously deducted by Mr. Lumsden, viz: $157,086.80, which will amount to a deduction on my part of $202,402.16.

GORDON GRANT,
Chief Engineer.

OTTAWA, Sept. 27, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.
Ottawa, Ont.

SIRS.—For your information, I beg to hand you herewith copy of a letter received from Mr. B. B. Kelliher, chief engineer of the Grand Trunk Pacific Railway, dated the 23rd instant, in reply to my letter to him of the 26th of August last, a copy of which was handed you on the same date.

GORDON GRANT,
Chief Engineer.

WINNIPEG, September 23, 1909.

MR. GORDON GRANT,
Chief Engineer, N. T. Railway,
Ottawa, Ont.

DEAR SIR,—Your letter of August 26th referring to reclassification of certain parts of the work on the Eastern Division of the National Transcontinental Railway now being arbitrated between the Commissioners and the Grand Trunk Pacific Railway, has been following me over the western country for some time, until I finally received it at Prince Rupert as I was leaving that place a week ago. As the subject matter of the letter is now under arbitration, I do not feel that I can individually do other than bring the matter before Mr. Schreiber, the third arbitrator agreed upon, and to that end I have to-day forwarded him a copy of your letter.

B. B. KELLIHER,
Chief Engineer.

OTTAWA, Sept. 25, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

DEAR SIRS,—In view of the fact that arrangements are now pending for the immediate arbitration of the disputes on classification, &c., with the G.T.R., and as this will indefinitely postpone the completion of my personal inspection of the work on District 'B' on the south side of the St. Laawrence river (Ihaving to date completed my inspection of all disputed points, with this exception(and as our 10 per cent holdback on the two contracts still uninspected with the contractors' deposit amounts to $947,623.72, the 10 per cent holdback being $622,623.72 and the deposits amounting to the sum of $325,000, and moreover, in the agreement dated the 10th of January, 1908 between yourselves and the Grand Trunk Pacific Railway Company it was agreed that in no case would monthly payments be delayed, except with the consent of the Commissioners, under the circumstances, I do not intend to delay longer the payments of the estimates on these contracts (Nos. 7 and 8, Messrs. M. P. & J. T. Davis), and will now sign the August estimates which I had intended holding back until I had inspected the work.

GORDON GRANT.
Chief Engineer.

OTTAWA, September 28, 1909.

E. J. CHAMBERLIN, Esq.,
General Manager.

DEAR MR. CHAMBERLIN,—In your letter of the 18th instant you argued that it was not necessary to have another joint letter of our two chief engineers agreeing upon Mr. Schreiber as third arbitrator of differences to be determined. At the suggestion of the Premier that we should consult the Department of Justice on that point, Messrs. Schreiber, Grant and myself called on the deputy minister and laid the matter before him so as to have a legal opinion. He has just sent the same in writing, and you will find a copy of it enclosed.

As he advises that a new appointment be made, a letter was prepared, similar in every word to the first one, which will be signed by Mr. Grant and Mr. Schreiber and taken up to Mr. Kelliher for his signature.

The course followed, you will see, was the best one under the circumstances, since it meets all requirements and at the same time does not affect the questions to be considered, which, you will agree, will have to be gone over from the beginning.

SESSIONAL PAPER No. 42a

Both Mr. Grant and Mr. Schreiber will proceed to Winnipeg on Thursday, the 30th instant, as I just advised you by telegram. We trust the determination of matters in dispute will be made, as arranged, without delay.

S. N. PARENT.

THE DEPUTY MINISTER OF JUSTICE, CANADA,
OTTAWA, September 28, 1909.

I am of opinion, upon perusal of the annexed correspondence and of sections 7 and 4 of the agreement, that, Mr. Lumsden having resigned, it is necessary, or at least advisable, for Mr. Grant, his successor, and Mr. Kelliher to join in a new appointment of Mr. Schreiber as third arbitrator.

E. L. NEWCOMBE,
Deputy Minister.

OTTAWA, September 29, 1909.

COLLINGWOOD SCHREIBER, Esq., C.E., C.M.G.,
General Consulting Engineer to the Government,
Ottawa, Ont.

DEAR SIR,—By clause 7 of the agreement between the Government of Canada and the Grand Trunk Pacific Railway Company, dated the 29th of July, 1903, being schedule to 3 Edward VII., chapter 71, in regard to the construction of the Eastern Division, it is provided that the work shall be done according to the specifications approved of by the Grand Trunk Pacific Railway Company, and shall be subject to the joint supervision, inspection and acceptance of the chief engineer appointed by the Government and the chief engineer of the railway company, and in the event of differences as to specifications, or in case the said engineers shall differ as to the work, the questions in dispute shall be determined by the said engineers and a third arbitrator to be chosen by them.

Some such differences having arisen as a result of objections filed by the company, we hereby beg to choose you as third arbitrator for the determination of the questions now in dispute, and on which we have failed to agree after visiting the work, and shall be pleased if you are agreeable to accept the office. In the event of your acceptance, a formal submission will be prepared and handed to you later.

GORDON GRANT,
Chief Engineer, Transcontinental Railway.

Chief Engineer, Transcontinental Railway.
I hereby accept the above appointment.

COLLINGWOOD SCHREIBER.

OTTAWA, 29th September, 1909.

WINNIPEG, MAN., 8th October, 1909.

Hon. S. N. PARENT.
Chairman Trans. R'y Com'n, Ottawa.

You seem to misunderstand position Grand Trunk Pacific Railway. My agreement with you which is outlined in your letter fifteenth was that all differences were to be discussed on the ground in accordance with article seven of the agreement between the Grand Trunk Pacific Railway and your government, and we are ready at any time to proceed on that basis. Mr. Grant declined to discuss and settle differences as above suggested, therefore delay rests entirely with your Commission.

E. J. CHAMBERLIN.

OTTAWA, September, 29, 1909.

J. D. McARTHUR, Esq.,
Railway Contractor,
Winnipeg, Man.

DEAR SIR,—By direction of the board, I beg to advise you that the chief engineer of the commissioners, Mr. Gordon Grant, and Mr. Collingwood Schreiber, C.M.G., are leaving Ottawa to-morrow and will, with Mr. Kelliher, the chief engineer of the Grand Trunk Pacific Railway, whom they will meet in Winnipeg, proceed over the line under contract for construction by you for the purpose of settling by arbitration the matters in dispute.

This notification is given you so that you may, if you so desire, appear before them and submit evidence with respect to your work and the matters in dispute thereon.

P. E. RYAN,
Secretary.

WINNIPEG, MAN., October 2, 1909.

P. E. RYAN,
Phone Sec'y, T. C. R., Ottawa, Ont.

Kelliher ignores the filed objections made by Woods. Positively refuses to act unless allowed to investigate everything on the line as to classification or any other matter he may see fit to dispute. Please wire instructions.

GORDON GRANT.
ST. BONIFACE, MAN., October 2, 1909.

Mr. P. E. RYAN,
Secretary T. C. Ry. Commisison,
Ottawa, Ont.

DEAR SIR,—I wired you to-day under cypher as follows:—

> 'Kelliher ignores the filed objections made by Woods; positively refuses to act unless allowed to investigate everything on the line as to classification or any other matters he may see fit to dispute. Please wire instructions.'

On my arrival in Winnipeg this morning, accompanied by Mr. Schreiber, I met Mr. Kelliher in his office, and I informed him that I was there ready to proceed with the arbitration of all matters under dispute as filed by Mr. Woods, the assistant chief engineer of the Grand Trunk Pacific, and in addition to that I was willing to arbitrate on all rock cuttings in the matter of overbreak. This Mr. Kelliher positively refused to agree to, insisting that he had the right to arbitrate on anything he liked, whether it had been a matter in dispute or not. I informed Mr. Kelliher I would wire the Commissioners informing them of his attitude in the matter. I await their instructions.

GORDON GRANT,
Chief Engineer.

WINNIPEG, MAN., October 2, 1909.

P. E. RYAN, Esq.,
Secretary, Commissioners of Transcontinental Ry.,
Ottawa.

DEAR SIR,—Replying to your letter of the 29th ultimo, which came to hand this morning, as I am not a party to the arbitration it is not my intention to submit any evidence or take any part in the proceedings.

In view of the fact that the sub-contractors who performed the work in dispute are scattered throughout different parts of Canada, it would not be possible for me to properly adduce evidence, even if I desired to take part in the arbitration.

If Mr. Grant so requests, I will be glad to accompany the arbitrators and give them such information and assistance as I can.

J. D. McARTHUR.

OTTAWA, October 3, 1909.

GORDON GRANT,
Royal Alexandra Hotel,
Winnipeg.

Submit letter at once for Mr. Kelliher's signature unconditionally. Wire result.

P. E. RYAN.

WINNIPEG, MAN., October 3, 1909.

P. E. RYAN,
Transcontinental Railway.

Kelliher has not signed joint letter, but says he has no objections to signing it.

GORDON GRANT.

OTTAWA, October 3, 1909.

GORDON GRANT,,
Royal Alexandra Hotel,
Winnipeg, Man.

Wire quick has Kelliher signed joint letter.

P. E. RYAN.

OTTAWA, October 4, 1909.

E. J. CHAMBERLIN,
Vice-President and General Manager,
Grand Trunk Pacific Railway Co.,
Winnipeg, Man.

Secretary Ryan just in receipt of telegram from Chief Engineer Grant as follows: 'Kelliher will not sign joint letter' Cannot understand this. Letter Kelliher now refusees to sign identically similar, word for word, to that previously signed by him jointly with Mr. Lumsden. This provides for appointment of Mr. Schreiber as third arbitrator to settle matters in dispute, as shown by record, and as agreed by Kelliher and Lumsden. Grant's position exactly similar to what Lumsden's was at that time. Kelliher must sign letter jointly with Grant, as advised by Justice Department, so arbitration may proceed without further delay. We respectively insist in public interest, that this be done at once. Should Kelliher persist in refusal and arbitration not proceed as agreed, we will have to recall Grant, and responsibility will rest with your Company. Will await your wire reply before instructing Mr. Grant.

S. N. PARENT.

WINNIPEG, Man., October 4, 1909.

P. E. RYAN,
Secretary National Transcontinental Railway Commission,
Ottawa, Ont.

Kelliher states his instructions are Chamberlin's letter to Parent dated September 18, as far as mode of procedure goes, and wants an agreement signed same as the one previously submitted by the Grand Trunk Pacific and rejected.

GORDON GRANT.

OTTAWA, October 4 1909.

GORDON GRANT,
Royal Alexandra Hotel,
Winnipeg, Man.

Telegram received. Chairman has wired Chamberlain. Will telegraph you again on receipt of his reply.

P. E. RYAN.

WINNIPEG, Man., October 4, 1909.

P. E. RYAN,
Secretary Transcontinental Railway Commission,
Ottawa.

Kelliher will not sign joint letter.

GORDON GRANT.

WAINWRIGHT, ALTA., October 5, 1909.

Hon. S. N. PARENT,
Chairman Trans. Ry. Comn.,
Ottawa.

Have wired Kelliher to sign letter appointing third arbitrator and to proceed at once with arbitration, as per our letters. Trust you will instruct Mr. Grant to make examination thorough, and to take all the time necessary to settle all differences between Winnipeg and Moncton.

E. J. CHAMBERLIN.

WINNIPEG, MAN., October 5, 1909.

P. E. RYAN,
Ottawa.

Mr. Kelliher, by instructions received to-night from Mr. Chamberlin, ignores objections filed by Mr. Woods and insists on examining and passing on everything. I will leave for Ottawa to-morrow morning.

GORDON GRANT.

OTTAWA, October 5, 1909.

GORDON GRANT,
Royal Alexandra Hotel,
Winnipeg, Man.

Your letter second instant and telegrams of second, third and fourth instant received and submitted to board. Chairman yesterday telegraphed Vice-President Chamberlin, Grand Trunk Pacific, as follows:—

'Secretary Ryan just in receipt of telegram from Chief Engineer Grant as follows: 'Kelliherr will not sign joint letter.' Cannot understand this. Letter Kelliher now refuses to sign identically similar, word for word, to that previously signed by him jointly with Mr. Lumsden. This provides for appointment of Mr. Schreiber as third arbitrator to settle matters in dispute, as shown by record, and as agreed by Kelliher and Lumsden. Grant's position exactly similar to what Lumsden's was at that time. Kelliher must sign letter jointly with Grant, as advised by Justice Department, so arbitration may proceed without further delay. We respectfully insist, in public interest, that this be done at once. Should Kelliher persist in refusal, and arbitration not proceed as agreed, we will have to recall Grant, and responsibility will rest with your company. Will await your wire reply before instructing Mr. Grant.'

Ascertain if telegram received by Chamberlin, and what instructions, if any, issued to Kelliher. Latter cannot ignore objections filed by Woods on behalf of Grand Trunk Pacific, which constitutes matters in dispute to be settled by arbitrators. Kelliher's representatives on eastern division since commencement of construction for purpose of investigating everything on line and filing objections. They have done so. These objections arbitrators must consider and determine. Kelliher's attitude again delaying arbitration. Persistence in this will perhaps indefinitely delay it. If he adheres to refusal to sign joint letter, your instructions are to return to Ottawa. Show this telegram to Kelliher, and advise result.

P. E. RYAN.

WINNIPEG, MAN., October 6, 1909.

P. E. RYAN,
Ottawa.

Leaving here this morning on 96 for Ottawa.

GORDON GRANT.

WAINWRIGHT, ALTA., Oct. 6, 1909.

Hon. S. N. PARENT,
Ottawa, Ont.

We now find Engineer Grant refused to take up anything but a few specific cases and not make arbitration cover all matters in dispute as you agreed when I saw you in Ottawa, and by your letter later, therefore Mr. Kelliher rightly refused to go on with arbitration. When Mr. Grant is prepared to take up all matters in dispute, Mr. Kelliher will be ready to meet him.

E. J. CHAMBERLIN.

OTTAWA, October 7, 1909.

E. J. CHAMBERLIN,
Vice-President and General Manager
Grand Trunk Pacific Railway,
Winnipeg, Man.

Your telegrams fifth and sixth instant received yesterday almost simultaneously. Letter signed by Grant and which Kelliher refused to sign on your instructions provided for appointment of Schreiber as third arbitratorr and for arbitration of all matters in dispute, as shown by letters of your Assistant Chief Engineer Woods. These are only matters of record in dispute, and we agreed they should be arbitrated. Grant advises, Kelliher wanted an agreement signed same as form of agreement dated May 14th last, submitted by you, which covered matters already determined and agreed on, such as interpretation of specifications, and which was rejected by us, but upon which the then arbitrators afterwards proceeded irregularly in District 'F,' which proceedings we protested against. My telegram to you of fourth instant correctly describes positions of Kelliher and Grant respectively, and responsibility confronting your company in matter. Grant was and is still ready to take up all matters in dispute as already indicated, and in view of result of his trip to Winnipeg, Kelliher had better meet him in Ottawa, if he decides to sign joint letter, so as to avoid further delay.

S. N. PARENT.

OTTAWA, October 7, 1909.

E. J. CHAMBERLIN, Esq.,
Vice-President and General Manager,
Grand Trunk and Pacific Railway Co.,
Winnipeg, Man.

Dear Mr. CHAMBERRLIN,—Inclosed is a confirmation of my telegram to you of this date. I cannot see why Mr. Kelliher declined to sign the joint letter, which speaks for itself, since, in the first instance, he had done so with Mr. Lumsden before proceeding to arbitration differences.

As to what will have to be determined, the matters in dispute are of record. It has been agreed between us here that the proceedings should affford every protection to all concerned, in that they were to be thorough in every respect, covering all work to which objections had been filed. The position is made still clearer by the fact of Mr. Lumsden, before the first tribunal was formed, having asked for a detailed list of all such objections, which were duly produced by Mr. Woods, the assistant chief engineer of your company.

Under the special agreement he was and still is the officer named by your company to examine our estimates each month, send in objections when he sees fit, and determine, if possible, these differences with our chief engineer after the latter has considered them.

The idea was plainly to facilitate the work of joint supervision by your company, as provided for in the Act, and at the same time to place before the two chief engineers in ready form the matters to be finally settled, either by mutual accord or arbitration, as the case may be.

For reasons which have been explained, it is in the public interest that these diffferences should be promptly adjusted, and I hope, therefore, that you will instruct Mr. Kelliher to prevent further delay by consenting to sign the joint letter, and proceed at the earliest possible date in the matter. In that case, as we advised you in my telegram, the document had better be signed in Ottawa, after which the three of them can leave together for District 'F.' I think it will not inconvenience Mr. Schreiber to start on the trip next week.

S. N. PARENT,
Chairman.

OTTAWA, Oct. 11, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS,—As you are aware, Mr. Collingwood Schreiber, General Consulting Engineer to the Government, was recently proposed and accepted by me as Third Arbitrator to act with the chief engineer of the G. T. P. and myself in settlement of the questions in dispute which have arisen as a result of objections filed by the Grand Trunk Pacific Railway Company. I, in pursuance of the understanding between yourselves and the General Manager of the G. T. P. Railway, accompanied by Mr. Schreiber, left Ottawa on September 30, for Winnipeg, arriving there on Saturday morning the 2nd instant, and immediately waited on Mr. Kelliher, chief engineer of the G. T. P., and asked him to sign the joint letter appointing Mr. Schreiber and providing for the arbitration of the matters in dispute, as provided by section 7 of the agreement of 1903 between the government and the G.T.P. Railway Company. This letter which I attach hereto, and which was signed by myself and Mr. Schreiber, is exactly similar word for word to the joint letter previously signed by my predecessor, Mr. Lumsden, and by Mr. Kelliher and Mr. Schreiber when proceeding to arbitrate these matters in dispute, which proceedings were never completed owing to Mr. Lumsden's resignation. This letter Mr. Kelliher stated he had no objections to signing, but he would not sign it, giving as

his reasons that until I consented to arbitrate on anything and everything that he liked to bring up he would not go out; that the arbitration was not to be confined to the filed objections of Mr. Woods, and until that had been agreed upon there was no use in his signing the letter.

I informed Mr. Kelliher that my instructions were to arbitrate on all complaints and objections as filed by Mr. Woods with the chief engineer of the Government, including all overbreak in rock cuttings. On this Mr. Kelliher informed me that, so far as he was concerned, he had no instructions, and that his only instructions was the Act of Parliament as contained in clause 7 of the Agreement between the Government and the Grand Trunk Pacific Railway Company.

In view of the attitude assumed by Mr. Kelliher, I left his office and wired you as per copy of telegram attached marked 'A,' and wrote you as per copy of letter attached marked 'B.'

On Monday morning, October 4, Mr. Schreiber and I called on Mr. Kelliher at his office, and I again asked him to sign the joint letter and go on with the arbitration, but he now positively refused to sign it, and read a letter from Mr. Chamberlin which stated that Mr. Kelliher's instructions were Mr. Chamberlin's letter to Mr. Parent dated September 18, 1909.

Mr. Kelliher also insisted in spite of the advice of the Deputy Minister of Justice to the contrary that I had no say in the appointment of a third arbitrator, that Mr. Lumsden's previous choice of Mr. Schreiber still held, and that another joint letter was not necessary. This of course was all in accordance with his instructions dated September 18. Not only was this the attitude assumed by Mr. Kelliher, but he also informed me that, before we went out, I would have to sign a formal agreement or submission similar to the one previously prepared by the authorities of the G. T. P. dated the 14th of May, 1909, which contained matters already determined and agreed on, and which you rejected. I told Mr. Kelliher to wire his general manager that I would do nothing of the kind, and again left his office. In the meantime he was in telegraphic communication with Mr. Chamberlin and received a telegram, copy of which I attach marked 'C.' On receipt of your telegram of October 5 I gave it to him to read. On Mr. Kelliher receiving a telegram from Mr. Chamberlin at 8.30 p.m., October 5, a copy of which I attach marked 'D,' he informe me that under no consideration would he now sign the joint letter. Consequently I wired you as per copy attached marked 'E,' and left for Ottawa next morning.

GORDON GRANT.
Chief Engineer.

'A'

ST. BONIFACE, MAN., October 2, 1909.

P. E. RYAN,
Secretary T. C. Ry., Ottawa.

Kelliher ignores the filed objections made by Woods. Positively refuses to act unless allowed to investigate everything on the line as to classification or to any other matters he may see fit to dispute. Please wire instructions.

GORDON GRANT.

'B'

ST. BONIFACE, MAN., Oct. 2, 1909.

Mr. P. E. RYAN,
Secretary N. T. Ry. Commission,
Ottawa, Ont.

DEAR SIR.—I wired you to-day under cypher as follows:—

Kelliher ignores the filed objections made by Woods and positively refuses to act unless allowed to investigate everything on the line as to classification or any other matters he may see fit to dispute. Please wire instructions.'

On my arrival in Winnipeg this morning accompanied by Mr. Schreiber, I met Mr. Kelliher in his office, and I informed him that I was there ready to proceed with the arbitration of all matters under dispute as filed by Mr. Woods, the assistant chief engineer of the Grand Trunk Pacific, and in addition to that I was willing to arbitrate on all rock cuttings in the matter of overbreak. This Mr. Kelliher positively refused to agree to, insisting that he had the right to arbitrate on anything he liked, whether it had been a matter in dispute or not. I informed Mr. Kelliher I would wire the commissioners informing them of his attitude in the matter, and await their instructions.

GORDON GRANT,
Chief Engineer.

'C'

FROM EDMONTON, ALTA., October 4, 1909.

To B. B. KELLIHER, at Winnipeg.

Have letter from Mr. Parent in which he states he has sent letter of appointment of Mr. Schreiber as third arbitrator worded precisely the same as previous appointment on advice of Minister of Justice, who seems to think it necesary. Provided letter is same as original signed by you appointing Mr. Schreiber third arbitrator, you can sign this and go on with arbitration, provided there is no limit to the investigation.

E. J. CHAMBERLAIN.

'D'

5th October, 1909, at Winnipeg.

To B. B. KELLIHER.

Mr. Parent's letter is explicit that all matters which we desire to bring up are to be discussed. You will therefore sign letter appointing Mr. Schreiber and start at once with them, but insist on examining and passing on everything in dispute. If you find any disposition after starting examination to curtail advise me promptly.

E. J. CHAMBERLIN.

'E'

WINNIPEG, October 5, 1909.

To P. E. RYAN,
Sec. Trans. Cont. R'y,
Ottawa.

Mr. Kelliher by instructions received to-night from Mr. Chamberlin ignores objections filed by Woods, and insists on examining and passing on everything. I will leave for Ottawa to-morrow morning.

GORDON GRANT.

WINNIPEG, October 12, 1909.

Hon. S. N. PARENT,
Chairman, Transcontinental Railway Commission.

DEAR MR. PARENT,—I have your letter and telegram of the 7th, to which I replied as follows:—

'You seem to misunderstand position Grand Trunk Pacific Railway. My agreement with you, which is outlined in your letter fifteenth, was that all differences were to be discussed on the ground in accordance with article seven of the agreement be-

tween the Grand Trunk Pacific Railway and your government, and we are ready at any time to proceed on that basis. Mr. Grant declined to discuss and settle differences as above suggested. Therefore, delay rests entirely with your commission.'

As outlined in above message, you seem to misunderstand the position of this company. In my interview with you on September 15th, it was agreed that a thorough and complete examination should be made, and this seems to have been your understanding when writing your letter of that date, as you say:—

'As a result of our exchange of views this morning, it is now fully understood that the two chief engineers are to discuss all differences on the ground as they go along. Whenever these cannot be disposed of by mutual accord, Mr. Schreiber will be called in and the question at issue passed upon by the three of them sitting as an arbitration tribunal. In order that the proceedings may be exhaustive, as desired, evidence and witnesses can be produced by each side in support of its contentions.'

Mr. Kelliher was instructed accordingly, and held himself in readiness to meet Mr. Schreiber and Mr. Grant, but when Mr. Grant arrived in Winnipeg he seemed to have a misunderstanding of this arrangement, as he refused to discuss anything but differences specifically mentioned by Mr. Woods; for instance, Mr. Woods would write Mr. Grant complaining that classification, over-break, etc., etc., was bad on say section 'A,' and would mention that a cut say at mile 10 was especially bad, and Mr. Grant would only consent to examining the cut specifically mentioned. I think you will agree with me that this would not be fair to the contractors or to your engineers if the arbitrator was to say that all the other cuts were equally as bad, and I cannot believe that it was the intention of your commission that only that cut should be passed upon and all the others passed as 'good.' I say this, as I feel sure that your government and your commission are as anxious as this company to have all irregularities corrected. We therefore refuse to proceed on the basis claimed by Mr. Grant.

The original examination between Mr. Lumsden, Mr. Kelliher and Mr. Schreiber was started on May 22nd with district 'F,' and completed on June 5th. June 17th they started on district 'B' and finished on June 25th, when Mr. Lumsden was called back to Ottawa by your commission, and requested Mr. Kelliher in writing to postpone examination of the other sections until a later date. We have been ready to resume at any time and complete balance of examination. I trust, therefore, you will direct Mr. Grant to go on and make a full and exhaustive examination under clause 7 of our contract with the government.

I think you will agree with me that any acts or omissions on the part of Mr. Kelliher, Mr. Woods, Mr. Lumsden or Mr. Grant cannot set aside an Act of Parliament, and because Mr. Woods complained to your chief engineer in a general way that the classification, over-break, etc., etc., on a certain section was bad, and only mentioned one or two cuts as especially bad, that it would not mean that those cuts were the only ones which should be examined.

There is another reason why this examination should not be delayed, and that is that many of the claims of over-classification are in cuttings which will soon be frozen and impossible to examine before next spring.

Our position in this matter is that the arbitration should not be restricted to questions of classification and over-break on any limitation as to what shall be arbitrated other than it shall be such matters as we are not in agreement upon with the commission, and we feel that we should not be selecting arbitrators every once in a while, but that now we have, after a long delay, finally succeeded in agreeing upon a third arbitrator acceptable to both, all matters in dispute should be passed upon and settled without further delay.

Trusting that you will instruct Mr. Grant at once to proceed with a full and complete examination similar to that exercised on sections 'F' and 'B,' I remain,

E. J. CHAMBERLIN,
Vice-President and General Manager.

SUBJECT.

Joint supervision of the work of construction of the Eastern Division of the National Transcontinental Railway.

Statement of the fact from the correspondence file of the Commissioners and Chief Engineer indicating the method agreed on for carrying out the work of joint supervision in accordance with section 7 of the agreement between the Company and the Government, of July 29, 1903.

Also instructions issued by the Chief Engineer to the engineers on the line with respect to the work of joint supervision.

1. Method agreed on.

The general specifications for the construction of the Eastern Division were signed by Mr. F. W. Morse, Vice President and General Manager of the Grand Trunk Pacific Railway Company, and Mr. H. A. Woods, the Company's Assistant Chief Engineer, in April, 1905, and were approved by Order in Council on May 31, 1905, and approved by the directors of the Company on August 3, 1905.

On June 29, 1906, a joint conference was held in Ottawa between the Commissioners, Mr. H. D. Lumsden, the Chief Engineer, and Mr. Morse and Mr. Kelliher, Chief Engineer, and Mr. H. A. Woods, Assistant Chief Engineer of the Company, and a memo. dater June 27, 1906, on the joint supervision of the Eastern Division was submitted by Mr. Morse as follows:—

Joint Supervision of the Eastern Division.

June 27, 1906.

'Memo. from Mr. Morse.'

'Grand Trunk Pacific to appoint an engineer on each district as it goes to construction.'

'Whenever a district goes to construction, the Commission to supply the Grand Trunk Pacific at their Montreal office, with the two prints of the map and profiles of final location. Map to show contour lines and all other usual data, profiles to show approximate quantities in each cut and fill with classification and all other information usually shown on a final location profile.'

'Engineer for Commission to supply Grand Trunk Pacific engineer, at their Montreal office, with copies of all cross-section notes, &c., necessary to compute quantities for progress and final estimates.'

'The relative district engineers to discuss fully any matter pertaining to the economic and efficient construction of the line, its buildings, structures and yards. In the event of an agreement not being arrived at, all matters to be referred, through the relative Chief Engineers, to the General Manager of the Grand Trunk Pacific, and the Commission for decision by them.'

'The Grand Trunk Pacific Chief Engineer, or his representative, to have facilities for examining all estimates, vouchers, &c., so he will be able to advise his Company, and ensure the least delay to the approval of the Grand Trunk Pacific.'

'On August 17, 1906, the General Manager of the Grand Trunk Pacific, wrote to the Chairman in part as follows:—

'Referring to joint conference between yourself, the Commissioners, Chief Engineer H. D. Lumsden, Chief Engineer B. B. Kelliher, Assistant Chief Engineer H. A. Woods, and myself in your Board room on June 29, relative to a joint supervision of the Eastern Division at which time we left a memorandum giving roughly the manner in which we suggested this should be carried on, and which suggestion was approved of by you and your colleagues, and at which time you were kind enough to say that you would have prepared certain records and data for us, and that the arrangement would be put into effect upon my writing you.'

'I will say I presume that by now the information referred to in the memorandum I left you is ready to be placed in the hands of our engineering department. We are

also ready to take up the work of joint supervision, and I herewith repeat the request presented to you in memorandum, which is made in accordance with section 7 of the agreement of July, 1903, which provides for the joint superintendence, inspection and acceptance of the work on the Eastern Division of the National Transcontinental Railway by the Chief Engineers of the Government and the Railway Company.'

'The personnel of our engineering department having connection with this joint supervision will be Mr. B. B. Kelliher, Chief Engineer, Mr. H. A. Woods, Assistant Chief Engineer, Mr. W. E. Mann, District Engineer, Mr. John Armstrong, District Engineer.'

'It is the intention that Mr. Woods will devote himself almost exclusively to this portion of the line, and Messrs. Mann and Armstrong will at the present be assigned by you to sections 'F' and 'B.'

'On August 27, 1906, the Commissioners passed a resolution as follows:—

'Hon. S. N. Parent in the chair.

'Correspondence in regard to the request of the Vice-President and General Manager of the Grand Trunk Pacific Railway Company for certain information to enable that Company to, jointly with the Commissioners, supervise the construction of the Eastern Division of the National Transcontinental Railway, was submitted, and it was

'Resolved that the information requested be furnished to the Grand Trunk Pacific Railway Company, and that their engineer assigned to the Eastern Division be given access to the records of the Commission's District Engineers, so as to enable them to become acquainted with the situation.'

The following was also passed on the 25th day of August, 1906:—

'Resolved that the chief or acting chief engineer be authorized to consult from time to time with the chief engineer or assistant chief engineer of the Grand Trunk Pacific Railway Company, in compliance with clause No. 7 of the schedule of the National Transcontinental Railway Act.'

On October 3, 1907, Mr. Morse, in a letter to the chairman, requested that copies of all cross section notes governing payments that had been made be sent to him, and that hereafter this information be sent monthly, together with a copy of the detailed monthly estimates.

The Chief Engineer, Mr. Lumsden, on October 9, 1907, wrote the board stating that he had instructed district engineers, where construction is in progress, to make duplicate copies of cross-section notes for use of the Grand Trunk Pacific engineers, and discuss fully with them any matters pertaining to the economic and efficient construction of the line, and to give them every facility to examine the estimates, etc.; and further, that copies of such had been sent to the Grand Trunk Pacific as soon as received.

The correspondence does not show anything further in regard to the method of joint supervision and inspection, but it appears that a meeting was held on the 9th of January, 1908, and, as a result of that meeting, the following document was prepared and approved by the board on January 10, 1908:—

'Memorandum of agreement to be drawn up between the Commissioners of the Transcontinental Railway and the Grand Trunk Pacific Railway Company.

'Monthly estimates for contractors shall be submitted promptly from time to time by the chief engineer of the commissioners to the company's assistant chief engineer at Montreal for approval. If he has any objections to such estimates, he shall promptly file the same with the chief engineer of the commissioners, and any objections from time to time filed shall thereupon be considered and, if possible, be determined by the said engineers, and in case of their failure to agree, may then or at any time before or at the time of the final payment, at the option of either party, be considered and determined by arbitration, as provided in the agreement of the 29th July, 1903, but

in no case shall the payment of monthly estimates be delayed except with the consent of the commissioners.

'In case the chief engineer of the commissioners and the assistant chief engineer of the company disagree as to the final payment, the same shall be withheld until the matter is determined by arbitration, as provided in the said agreement of 29th July, 1903.'

This memorandum was initialled by Mr. C. M. Hays, Mr. Lumsden and the Hon. Mr. Parent. After this memorandum was agreed to, the progress estimates were sent to the Grand Trunk Pacific at Montreal, and objections were subsequently filed by Mr. Woods on behalf of the company as to classifications in districts 'B' and 'F,' and 'over-break' in the latter district. On the 24th April, 1908, Mr. Lumsden, the chief engineer, reported to the board recommending that the objections be referred to arbitration, as provided by clause 7 of the agreement. This was approved by the board, and Mr. Lumsden instructed to notify Mr. Woods. Mr. Lumsden and Mr. Woods subsequently visited certain points on the work and failed to agree. As a result, Mr. Kelliher, the chief engineer of the Grand Trunk Pacific Company, wrote to Mr. Lumsden on November 16, 1908, with respect to these differences, and suggested Mr. Collingwood Schreiber as third arbitrator. On January 7 Mr. Lumsden wrote the commissioners concurring in Mr. Schreiber's appointment. On February 1, 1909, Mr. Lumsden wrote Mr. Kelliher submitting letter to be signed by Mr. Kelliher and himself jointly, requesting Mr. Schreiber to act as third arbitrator, and pointing out that the only questions to be considered and determined were classification and overbreak, in regard to which there had been correspondence between himself and Mr. Woods.

The joint letter, dated March 16, 1909, subsequently signed by Messrs. Kelliher and Lumsden, requesting Mr. Schreiber to act as third arbitrator, and on which Mr. Schreiber's acceptance is endorsed, provides for the arbitration of the 'questions now in dispute,' and on which they had 'failed to agree after visiting the work,' and stated that these questions had arisen 'as a result of objections filed by the company.'

INSTRUCTIONS ISSUED BY THE CHIEF ENGINEER TO THE ENGINEERS ON THE LINE.

On the 28th August, 1906, the acting engineer, Mr. MacPherson, notified the district Engineer of District 'F' that Mr. W. E. Mann had been appointed district engineer by the Grand Trunk Pacific to represent them for the joint supervision of the work, and giving him full instructions to furnish Mr. Mann with everything mentioned in the memo. of Mr. Morse of June 27, 1906, and similar instructions with notice of the appointment of Mr. Armstrong were sent by Mr. MacPherson to Messrs A. E. Doucet, and Hoars, of district 'B,' and on the 7th of September a copy of the resolution passed by the Board on the 27th of August 1906 was sent to Mr. A. E. Doucet, district engineer of 'B,' and A. E. Hodgins, district engineer of 'F,' and on the 10th of September, Mr. H. A. Woods, assistant chief engineer of the Grand Trunk Pacific, wrote Mr. Lumsden stating that the instructions given to the district engineers were satisfactory. On the 28th of September 1906, Mr. Woods wrote Mr. Lumsden asking whether their engineers were to have access to monthly estimates and vouchers for extra work. In answer to this Mr. Lumsden wrote Mr. Woods on the 2nd of October, 1906, stating that he saw no reason why those engineers should not have access to the contractors estimates and orders for extra work, as soon as such estimates have been approved for payment by him; and Mr. Lumsden notified the district engineers to that effect. Notices were also sent in November, 1906, by the chief engineer to the district engineers where construction was in progress to send copies of the cross-section notes on form 9 supplied by the Grand Trunk Pacific Railway Company for

use of G. T. P. engineers, and to discuss fully with them any matters pertaining to the economic and efficient construction of the line, and to give them every facility to examine estimates.

OTTAWA, October 16, 1909.

GORDON GRANT, ESQ.,
Chief Engineer.

DEAR SIR,—By direction of the Board, I beg to hand you herewith a copy of a letter from Mr. E. J. Chamberlin, Vice-President and General Manager of the Grand Trunk Pacific Railway, dated the 12th instant, *re* arbitration, and I am to request that you will report to the board in regard to the representations made therein with respect to the position taken by you at your recent meeting in Winnipeg with the chief engineer of the Grand Trunk Pacific Company *re* arbitration.

P. E. RYAN,
Secretary.

GRAND TRUNK PACIFIC RAILWAY,
OTTAWA, Oct. 18, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

SIRS,—Replying to the secretary's letter of the 16th instant asking for a report to the Board in regard to the representations made in a letter from Mr. Chamberlin, Vice-President and General Manager of the Grand Trunk Pacific Railway, dated the 12th instant.

With regard to this letter of Mr. Chamberlin's, I may say that I consider my report to you of the 11th instant is an answer to this letter, as it explains clearly what took place in Winnipeg between myself and Mr. Kelliher, but may add in regard to Mr. Chamberlin's statement that I misunderstood the agreement between himself and Mr. Parent, that I know nothing of any such agreement. What I did understand perfectly were my instructions, and those instructions governed my actions when dealing with Mr. Kelliher. With Mr. Chamberlin's views as to what is or is not to be arbitrated, I have nothing to say; I take my instructions from the Board in such matters.

With reference to Mr. Chamberlin's statement that Mr. Lumsden was called back to Ottawa by the Commission, I understand from you that you did not call Mr. Lumsden back to Ottawa, and in the records of my office I find a letter addressed by Mr. Lumsden to Mr. Schreiber dated June 22, 1909, in which he says:

'As it is important that I should be in Ottawa on the 24th instant, and the work of inspection of the Macdonell & O'Brien contract in connection with matters in dispute between the chief engineer of the Grand Trunk Pacific Railway and myself having been completed, I am unable to proceed further with the work at the present time.'

I understand from my secretary, who was also Mr. Lumsden's secretary, that the first time he wrote this letter to Mr. Schreiber, Mr. Lumsden stated that it was important that he should be in England early next month, that is, he, in his second letter, changed 'England' to 'Ottawa.' I believe this letter was written after consultation with Mr. Schreiber, but I can find no record in my office of Mr. Lumsden having asked Mr. Kelliher in writing to postpone examination of the other sections until later on. I may also add that the examination was finished on June 22nd, not June 25th as stated by Mr. Chamberlin.

With reference to Mr. Chamberlin's statement that 'you will agree with hom that 'any acts or omissions on the part of Mr. Kelliher, Mr. Woods, Mr. Lumsden, or Mr

'Grant cannot set aside an Act of Parliament,' Mr. Chamberlin may speak with knowledge as to the acts or omissions of his own staff, as they are acting under his instructions, and as to what he knows about Mr. Lumsden's acts or omissions, I am unable to say, but, so far as I am concerned, there has been no act or omission on my part that could in any way affect an Act of Parliament, and I told Mr. Kelliher that, so far as I was concerned, it was the Commissioners I looked to for the interpretation of the Act and not the chief engineer of the Grand Trunk Pacific.

With regard to Mr. Chamberlin's statement that this arbitration should not be delayed I quite agree, and am ready, and have been ready for the past two months, as the records will show, to start on the arbitration the moment Mr. Kelliher signs the joint letter appointing the third arbitrator. Mr. Kelliher signed an exactly similar letter when submitted to him by my predecessor, Mr. Lumsden. His inconsistency in refusing to sign it when submitted by me and to proceed with the arbitration as he previously agreed to proceed with Mr. Lumsden is what is responsible for the delay.

GORDON GRANT,
Chief Engineer.

OTTAWA, October 20, 1909.

E. J. CHAMBERLAIN, Esq.,
Vice President and General Manager,
Grand Trunk Pacific Railway Co.,
Winnipeg, Man.

DEAR MR. CHAMBERLAIN,—In reply to your letter of the 12th inst., which was laid before the Board, I enclose copy of a report from our Chief Engineer dated the 18th inst., which covers the points you had raised.

A letter written by Mr. Grant (October 11) on his return from Winnipeg also attached, with several enclosures, states what exactly took place there, and our position in the matter.

The above documents show conclusively that Mr. Kelliher's refusal to sign the joint letters is not due to any attempt on our part to curtail in any way the arbitration of present differences as you would seem to intimate.

It is strange, as I had occasion to tell you verbally on your recent visit, that your Chief Engineer should have assumed such a stand. After our exchange of views, I thought the matter fully understood, and that there would be no room for equivocation.

We quite understand the position of your company. Some remarks you make and the useless trip made by Messrs. Schreiber and Grant west render it quite apparent. I must say that such a position is directly at variance with clause 7 of the agreement, with the spirit and letter of the special agreement signed on January 10, 1908, as to the method of joint supervision, and also with the views I had made plain when we discussed the subject together.

The Act provides in regard to arbitration 'That the questions in dispute shall be determined by the two Chief Engineers and a third arbitrator, &c.'

Until these questions have been ascertained, there can be nothing to arbitrate upon.

It is therefore quite proper that the joint letter should read: 'Some such differences having arisen as a result of objections filed by your Company, &c.'

This brings us to the Special Agreement just referred to. Its intent, as I pointed out to you before, was and should be still to enable your Company, by every reasonable means to exercise its right of joint supervision and make known its objections at the proper time, as outlined in a memorandum of Mr. Morse, dating as far back as June 27, 1906, a copy of which I subjoin. The agreement was framed to meet fully the wishes of your company under this head as appears from a comparison of the two texts.

Arrangements were made by your Company to avail itself of the facilities thus given. You have district engineers to keep in close touch with the work, discuss all details of construction they may see fit, and report to Assistant Chief Engineer Woods when their views disagree with those of our enlineers. The latteer was placed in charge of that department with authority to examine estimates and file objections.

No other construction can rightfully be placed on all these arrangements than they are meant to furnish the material for the two Chief Engineers to discuss together and submit to a third arbitrator in the event of a failure to agree.

As shown by record, there are matters in dispute to be passed upon by the arbitration tribunal, when properly constituted. These are the only actual differences under examination, and I could not therefore have had anything else in mind when discussing the subject with you, either in conversation or in writing.

The above sums up our understanding. It was agreed that the examination should be thorough and cover all differences, which can only mean, of course, such matters as are now in dispute.

Just before the first proceedings took place, objected to as irregular and incomplete, Mr. Lumsden (February 1, 1909) wrote to Mr. Kelliher as follows:—

'In regard to yours of the 19th ultimo. The questions of classification and overbreak are the only ones I can think of that have heretofore been repeatedly taken up in interviews with your late general manager, and about which there has been considerable correspondence between your Assistant Chief Engineer and myself, and these in my opinion, are the questions now to be submitted; other questions that may hereafter arise can be submitted from time to time.'

There can be no doubt as to what questions are at present in dispute. Nothing is changed in the situation as Mr. Lumsden outlined it. Hence the joint letter submitted for signature is the same, word for word. This had been explained in the course of our conversation. In your telegram of the 4th instant to Mr. Kelliher, you directed him to sign the letter, if similar to original, adding 'and to go on with arbitration provided there is no limit to investigation.' This came after Mr. Grant's first interview with Mr. Kelliher on October 2, when he had informed your Chief Engineer that he was ready to proceed with the arbitration of all matters under dispute, as filed by Mr. Woods, and, in addition, that he was willing to arbitrate on all rock cuttings in the matter of overbreak. This, as stated by Mr. Grant in his letter of the same date, Mr. Kelliher positively refused to concur in, insisting that he had the right to arbitrate on anything he liked, whether it had been a matter of dispute or not. He thereby placed himself on record as determined to ignore objections previously filed.

By so doing Mr. Kelliher, I must again point out, is in direct contradiction with the very principle that should govern arbitration. His attitude, moreover, is not consistent with his action in signing the first letter. The truth is we might be justified in terming it, in the light of all these facts, as a breach of faith.

Until the letter is signed, nothing can be done, and it is our duty to protest both against the ground taken and the consequent delay.

S. N. PARENT,
Chairman.

OTTAWA, October 21, 1909.

H. A. WOODS, Esq.,
Assistant Chief Engineer, G.T.P. Ry.,
Montreal, P.Q.

DEAR SIR,—I beg to acknowledge receipt of your letter of the 5th instant in which you file objections to the classification as returned on contracts Nos. 4 and 5, in District 'A.'

These objections cover work done one to two years ago, notwithstanding that the same was approved by your inspectors. This is contrary to the spirit and letter of the agreement of January 10, 1908, under which you were to file any objections promptly; and I have accordingly brought the matter to the attention of the commissioners. If there is any substantial ground for these objections, it is difficult to understand why they were not made as the work progressed. Indeed the company's inspectors on this work, placed there for the purpose of carrying out the joint supervision of the work in accordance with the agreement of 1903, have from time to time expressed themselves as entirely satisfied with the work as it progressed.

Objections have now been filed on behalf of the Grand Trunk Pacific Company to the classification on the following contracts:—

District 'A' — Contract No. 4 — G.T.P. Co.
" 'A' — " 5 — Kitchen Co.
" 'B' — 8 — M. P. and J. T. Davis.
" 'B' — " 15 — Macdonnell and O'Brien.
" 'C' & 'D' " 14 — G.T.P. Co.
" 'F' — " 19 — O'Brien, Fowler and McD.
" 'F' — " 21 — J. D. McArthur Co.

I have already withheld, and am still withholding, from the contractors' estimates, contracts Nos. 10 and 21, amounts sufficient to my judgment to cover the objections filed against the work on these contracts.

In view of the attitude adopted by the Grand Trunk Pacific Company with respect to arbitration these differences, and the consequent delay in proceeding with the arbitration, I feel that it is necessary to withhold payments on the other contracts on which objections have been filed, as follows:—

September estimates—Contract No. 14, Dist. 'C.'

October estimates—Contracts Nos. 4, 5, 8, 14 and 19. While no objections have been filed on contracts No. 11, G.T.P., District 'B,' and contract No. 20, G.T.P., District 'F,' from personal observation, I consider that over-classification has been allowed in some cases on these districts, and I have instructed the division engineer to have certain cuttings remeasured and reclassified. Consequently, I will also withhold payment of the October estimates on these two contracts. These amounts will be withheld to safeguard the position of the commissioners until I can satisfy myself in regard to the work.

This action is made doubly imperative by the course which your chief engineer has seen fit to adopt of repudiating your authority on the eastern division, so far as representing his views and the views of the company is concerned, which makes it impossible for me to proceed on the lint with you with a view of coming to an agreement with respect to the objections filed. His attitude is made more inexplicable by his refusal to himself accompany me on the line with a view to a settlement of these differences. I have urged on Mr. Kelliher the necessity of his acting both by letters and telegrams, particularly in my telegram of the 8th instant, but he has so far not honoured me with so much as an acknowledgment of their receipt.

GORDON GRANT,
Chief Engineer.

OTTAWA, Oct. 22, 1909.

The Commissioners of the Transcontinental Railway,
Ottawa, Ont.

SIRS,—I beg to hand you herewith copy of a letter I yesterday sent to Mr. H. A. Woods, assistant chief engineer of the Grand Trunk Pacific Railway, in reply to a letter from him dated the 5th October, protesting against the classification as returned on contracts Nos. 4 and 5, district 'A.'

GORDON GRANT,
Chief engineer.

SESSIONAL PAPER No. 42a

OTTAWA, November 8, 1909.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY,
Ottawa, Ont.

RE ARBITRATION.

SIRS,—On assuming the position of your chief engineer, I found that disputes as to classification, &c., existed between the Commissioners' and the Grand Trunk Pacific Railway Company's District Engineers. I also found that there was in existence an agreement dated January 10, 1908, between the G. T. P. Ry. Company and the Commissioners whereby the G. T. P. Ry. Company agreed to file promptly with the chief engineer of the Commissioners any objections they might have to the work, and that such objections would thereupon be considered, and, if possible, settled by the chief engineer of the Commissioners and the assistant chief engineer of the G. T. P. Ry., or by arbitration under the Act at the option of either party. While the records show that the assistant chief engoneer had filed such obpections, they do not show that they were arbitrated on. Therefore, my first act on taking up the duties of my present position was to write to the assistant chief engineer of the G. T. P. Ry. requesting him, in conformity with the above agreement, to accompany me on the work with a view to settling all outstanding objections as filed by him. This he declined to do, and as the chief engineer of the G. T. P. Ry. was in British Columbia, and there was no immediate prospect of arbitration going on, I decided, for our protection, to hold back from the contractors' progress estimates sums of money sufficient, in my opinion, to cover any reasonable objection that could be made to the classification, and this money is still held back pending arbitration. I also wrote to the chief engineer of the G. T. P. Ry., and requested him to accompany me over the work with a view to settling all disputes, and should any case or cases arise that we could not agree on, they could be left to arbitration, as, until we could agree, there could not be anything to arbitrate. The action the chief engineer of the G. T. P. took in the matter was to send a copy of my letter to Mr. Schreiber.

As Mr. Lumsden had resigned as arbitrator before any report had been sent in with reference to the work he had gone over, in the latter part of September last, as a result of Mr. Chamberlin's interview with the chairman and the correspondence that followed, you decided that the arbitration would go on *de novo*. Pursuant to this decision I proceeded to Winnipeg, when, to my surprise, Mr. Kelliher positively refused to sign the joint letter appointing the third arbitrator, and I had no alternative but to return to Ottawa without going on the work at all.

As I am still holding up large sums of money from the contractors, and as the assistant chief engineer of the G. T. P. Ry. has recently filed objections to classification on districts 'A,' 'B,' 'D,' and 'F.' on work that was done one, two and three years ago, which is directly contrary to the agreement between yourselves and the G. T. P. Ry., and which, if persisted in, may lead to no end of complications between yourselves and the contractors, and which action on his part renders it necessary for me, for our protection, to hold back still further sums of money from the estimates, for doing which I am now receiving protests from the contractors, and as over a month has elapsed since my return from Winnipeg, and the season is now far advanced, I am of the opinion that the arbitration of these filed disputes should take place without any further delay, and as Mr. Kelliher and myself have failed to agree as aforesaid, the matter be at once referred to the Chief Justice of the Supreme Court of Canada as per clauses 4 and 7 of the Agreement between the Dominion Government and the Grand Trunk Pacific Railway Company dated the 29th of July 1903 for the appointment of a third arbitrator. If this appointment is made I will then be in a position to go over the line and refer all disputes as filed by the assistant chief engineer of the G. T. P. to the third arbitrator so appointed, and have these matters settled whether Mr. Kelliher sees fit to accompany us or not.

GORDON GRANT,
Chief Engineer.

MONTREAL, QUE., Nov. 8, 1909.

P. E. RYAN,
Transcontinental Railway,
Ottawa.

If agreement approved by Ministers and left with Dr. Pugsley Thursday last has been executed on behalf of Commissioners kindly return one original for our files.

W. H. BIGGAR.

OTTAWA, November 8, 1909.

W. H. Biggar,
General Solicitor,
Grand Trunk Pacific Ry. Co.,
Montreal, P.Q.

Replying your telegram even date. Nothing is known by Commissioners or undersigned of agreement referred to. Same has not been submitted to Commissioners.

P. E. RYAN,
Secretary.

To the Grand Trunk Pacific Railway Company:

You are hereby required to take notice that, pursuant to clauses 4 and 7 of the agreement of the 29th of July, 1903, made between His Majesty the King and the Grand Trunk Pacific Railway Company, application will be made by the Commissioners of the Transcontinental Railway to the Right Honourable Sir Charles Fitzpatrick, K.C.M.G., the Chief Justice of Canada, at the Supreme Court Chambers in the city of Ottawa, Ontario, on Thursday the eleventh day of November, instant, at eleven o'clock in the forenoon, to nominate and appoint a third arbitrator to act with Gordon Grant, Esq., chief engineer of the commissioners of the Transcontinental Railway, and B. B. Kelliher, Esq., chief engineer of the Grand Trunk Pacific Railway Company, to determine the questions now in dispute between the said engineers on objections specifically filed by the said company concerning and relating to the construction of the Eastern Division of the National Transcontinental Railway.

Dated at Ottawa, the eighth day of November, A.D., 1909.

The Commissioners of the Transcontinental Railway.

GORDON GRANT,
Chief Engineer.

P. E. RYAN,
Secretary.

H. ATKINSON,
Law Clerk.

To the Right Honourable,
Sir Charles Fitzpatrick, K.C.M.G.,
Chief Justice of Canada.

The application of the Commissioners of the Transcontinental Railway made under and pursuant to clauses 4 and 7 of an agreement made between His Majesty the King of the first part, and Sir Charles-Rivers Wilson, C.B., G.C.M.G., and others representing and acting on behalf of the Grand Trunk Pacific of the second part, dated 29th day of July, 1903, ratified and confirmed under an Act passed by the Parliament of Canada, intituled 'An Act respecting the construction of a National Transcontinental Railway,' chapter 71, 3 Edward VII.

The said commissioners appointed under section 9 of the said Act, and amending Act, cap. 24, sec. 11, 4 Edward VII., are charged with the construction of the

Eastern Division of the said railway extending from the city of Moncton, in the province of New Brunswick, to the city of Winnipeg, in the province of Manitoba, and that the whole of the said division is now under construction.

That clause 7 of the said agreement provides that the said work shall be done according to specifications submitted to and approved of by the said company, and that the said work shall be done according to the said specifications and shall be subject to the joint supervision, inspection and acceptance of the chief engineer, approved by the government, and the chief engineer of the said company, and in the event of differences as to the specifications, or in case the said engineers shall differ as to the work, the question in dispute shall be determined by the said engineers and a third arbitrator to be chosen in the manner provided in clause 4 of the said agreement.

That during the progress of the work of construction the said company had engineers thereon and through their assistant chief engineer, filed with the commissioners from time to time certain objections to the work of construction, and pursuant to clause 7. Mr. Hugh D. Lumsden, chief engineer of the commissioners, and Mr. B. B. Kelliher, chief engineer of the company, arbitrated on the said objections and questions in dispute and failed to agree, and by joint letter chose Collingwood Schreiber, Esq., chief engineer, as third arbitrator. That the said three arbitrators during the months of May and June, 1909, proceeded to examine the said work of construction and the questions in dispute, but before concluding the same the said H. D. Lumsden tendered his resignation as chief engineer of the commissioners on or about the twenty-fifth day of June last, and his resignation was accepted by the government, whereupon the government appointed Mr. Gordon Grant as chief engineer of the said Eastern Division.

That in the month of October last Mr. Grant applied to Mr. Kelliher, the chief engineer of the Grand Trunk Pacific Railway Company, to sign a joint letter appointing said Mr. Schreiber the third arbitrator to act on said aribtration, but Mr. Kelliher refused to do so.

The commissioners therefore make this application to your lordship to appoint a third arbitrator as provided by the Act.

Dated this eleventh day of November, A.D., 1909.

The Commissioners of the Transcontinental Railway.

GORDON GRANT,
Chief Engineer.

P. E. RYAN,
Secretary.

OFFICE OF THE MINISTER OF RAILWAYS AND CANALS,
OTTAWA, November 13, 1909.

Hon. S. N. PARENT,
Chairman Transcontinental Railway Commssion,
Ottawa.

DEAR MR. PARENT,—In pursuance of our discussion and decision of yesterday, I send you by Mr. Alward, for your signature, duplicate letter appointing Mr. Collingwood Schreiber as third arbitrator under paragraph 7, chapter 71 of the agreement of 1903. Also copy of the reference of submission. Kingly have Mr. Grant, chief engineer, sign the duplicate letter appointing Mr. Schreiber and then forward it to Mr. Kelliher for his signature, also kindly attach your signature to the article of submission and return one to me, which I will send to the Grand Trunk Pacific as soon as I get the letter of appointment signed.

GEO. P. GRAHAM.

MEMORANDUM OF AGREEMENT made the seventeenth day of November, A.D. 1909,

Between

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY, hereinafter called 'the Commissioners,' of the first part,

and

THE GRAND TRUNK PACIFIC RAILWAY COMPANY, hereinafter called 'the Company,' of the second part.

Whereas by paragraph 7 of the agreement bearing date the 29th day of July, 1903, and entered into on behalf of His Majesty the King and the Company, respectively, a copy of which agreement forms the schedule to chapter 71 of the Statutes of Canada, 1903, it is provided as follows:—

'7. In order to insure for the protection of the Company as lessees of the Eastern Division of the said railway, the economical construction thereof in such a manner that it can be operated to the best advantage, it is hereby agreed that the specifications for the construction of the Eastern Division shall be submitted to and approved of by the Company before the commencement of the work, and that the said work shall be done according to the specifications, and shall be subject to the joint supervision, inspection and acceptance of the chief engineer appointed by the Government and Chief Engineer of the Company, and in the event of differences as to the specifications, or in case the said engineers shall differ as to the work, the questions in dispute shall be determined by the said engineers and a third arbitrator, to be chosen in the manner provided in paragraph 4 of this agreement.'

And whereas a memorandum was on the 10th of January, 1908, initialed by S. N. Parent and H. D. Lumsden, on behalf of the Commissioners and Charles M. Hayes, on behalf of the Company, as follows:—

'Monthly estimates for contractors shall be submitted promptly from time to time by the Chief Engineer of the Commissioners to the Company's Assistant Chief Engineer at Montreal for approval. If he has any objection to such estimates, he shall promptly file the same with the Chief Engineer of the Commissioners and any objections from time to time filed shall thereupon be considered, and, if possible, determined by the said Engineers, and in case of their failure to agree, may then or at any time before or at the time of the final payment, at the option of either party, be considered and determined by arbitration as provided in the agreement of the 29th July, 1903, but in no case shall the payment of monthly estimates be delayed, except with the consent of the Commissioners.

'In case the chief engineer of the commissioners and the assistant chief engineer of the company disagree as to the final payment, the same shall be withheld until the matter is determined by arbitration, as provided in the said agreement of 29th July, 1903.'

And whereas, on the sixteenth of March A.D., 1909, the chief engineer of the commissioners and the chief engineer of the company, in consequence of certain differences having arisen between them as a result of objections filed by the company, did appoint Collingwood Schreiber as third arbitrator for the determination of the said differences, by letter, in the words and figures following:—

'OTTAWA, March 16, 1909.

'COLLINGWOOD SCHREIBER, Esq.,
'General Consulting Engineer to the Government,
'Ottawa, Ont.

'DEAR SIR,—By clause 7 of the agreement between the government of Canada and the Grand Trunk Pacific Railway Company, dated the 29th July, 1903, being schedule to 3 Edward VII., chapter 71, in regard to the construction of the eastern

division, it is provided that the work shall be done according to the specifications approved of by the Grand Trunk Pacific Railway Company, and shall be subject to the joint supervision, inspection and acceptance of the chief engineer appointed by the government and the chief engineer of the railway company, and in the event of differences as to the specifications, or in case the said engineers shall differ as to the work, the questions in dispute shall be determined by the said engineers and a third arbitrator to be chosen by them.

'Some such differences having arisen as a result of objections filed by the company, we hereby beg to choose you as third arbitrator for the determination of the questions now in dispute, and on which we have failed to agree after visiting the work, and shall be pleased if you are agreeable to accept the office. In the event of your acceptance, a formal submission will be prepared and handed to you later.

'HUGH D. LUMSDEN,
'*Chief Engineer, Transcontinental Railway.*

'B. B. KELLIHER,
'*Chief Engineer, Grand Trunk Pacific Railway.*'

And whereas, the said Collingwood Schreiber did accept the said appointment by memorandum upon the said letter as follows:—

'I hereby accept the above appointment.

'22nd March, 1909.

'COLLINGWOOD SCHREIBER.'

And khereas, after entering upon the work of such arbitration, but before the said arbitrators had made any report thereon, the said Hugh D. Lumsden had resigned the position of Chief Engineer of the Transcontinental Railway, and one Gordon Grant has since been appointed in his place as such chief engineer;

And whereas the said Gordon Grant, as such chief engineer, and B. B. Kelliher, chief engineer of the company, have by memorandum bearing even date herewith, a copy of which is attached hereto, appointed the said Collingwood Schreiber as third arbitrator for the purpose of dealing with *de novo* and determining, irrespective of any investigation heretofore made by the said Hugh D. Lumsden, B. B. Kelliher and Collingwood Schreiber, the said matters in difference between the said chief engineers as a result of or arising by reason of such objections filed on behalf of the company;

Now this agreement witnesseth that it is agreed that the said Gordon Grant, B. B. Kelliher and Collingwood Schreiber, as such arbitrators, shall proceed to deal with and determine all questions and differences between the commissioners and the company arising or as a result of objections filed on behalf of the company with the commissioners previous to the 10th day of January, A.D. 1908, and also all questions and differences arising out of or as a result of objections filed on behalf of the company with the commissioners up to the date hereof under and pursuant to the terms of the said memorandum of the tenth of January, 1908, it being understood that questions and differences not covered by or arising out of such objections shall not be dealt with by the said arbitrators.

It is understood that the said third arbitrator is to be called upon to act in the adjustment of such questions and differences only when the said Gordon Grant and the said E. B. Kelliher, the two respective chief engineers, fail to agree.

Each party shall have the right to produce evidence before the said arbitrators as to the matters in dispute.

Except as herein expressly agreed, neither the making of this agreement nor anything herein contained or done in pursuance hereof shall be deemed to operate as a waiver of or in any respect alter, limit, abridge or modify any of the rights of His

Majesty the King, or of the company, under the said agreement of the 29th July, 1903, or under any term or provision thereof.

In witness whereof the said parties hereto have executed these presents on the day and year first above mentioned.

THE GRAND TRUNK PACIFIC RAILWAY COMPANY,

By CHAS. M. HAYS,
President.

HENRY P. PHILIPS,
Secretary.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

S. N. PARENT,
Chairman.

P. E. RYAN,
Secretary.

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RETURN

(43)

Ottawa, July 15, 1909.

The Right Honourable
Sir Wilfrid Laurier, P.C., G.C.M.G.,
Prime Minister of Canada,
Ottawa.

Sir,—I have the honour to report that, having received instructions from you to proceed to Australia and New Zealand, to discuss with the governments of those countries the possibility of taking such steps as would lead to the inauguration of a steamship service between England, Australia and New Zealand, via Canada, on the Atlantic and Pacific oceans, which in point of speed, comfort and capacity would realize the wishes and desires of all the above mentioned countries, as expressed in the resolution adopted by the Colonial Conference held in England in 1907, and supported by the several delegates of the countries above referred to, in attendance at such conference, I proceeded to those countries in November last, via Vancouver, for the purpose of carrying out such instructions.

On my arrival in Australia, I found that parliament had just been summoned, and it was some time, owing to the time of the Premier being fully occupied by the necessary organization of the House and rush of business, which in all countries seem to be the necessary sequence of the opening of parliament, before it was possible for me to meet the Prime Minister. After some time, however, I was granted the privilege of an interview, and represented to him the desire of your government, that a delegate should be appointed, who, in conjunction with similarly appointed delegates from New Zealand and Canada, might approach the Imperial government, and urge upon it the taking of such steps as would insure the inauguration of the above mentioned steamship service from England to Australia, via Canada, and New Zealand. The interview was, owing to the fact of the Premier's time being much occupied by the business of parliament, and that the meeting was only a preliminary one, necessarily short, but very satisfactory, the Premier expressing his sympathy with the scheme, and the friendliness of Australia towards the sister colonies, and approval of the desire to draw closer the bonds of empire by improved, more frequent and more rapid communication, and greater transportation facilities, but explaining that, as it necessarily involved considerable outlay, the ultimate decision would depend to a great extent on the amount demanded. Moreover, as it was a question that must necessarily be discussed with his colleagues, a meeting, to be determined later, was agreed upon by the Prime Minister, and I withdrew.

Some days later, and before a second interview could take place, I noticed in the Melbourne press that the Labour party, who had been supporting the government, had given notice in the Commonwealth parliament that it could no longer vouchsafe to the government the support which it had given for some time past, and as the government without the support of the Labour party were in a clear minority its resignation was handed to His Excellency the Governor General of the Commonwealth, who called upon the leader of the Labour party, Hon. Mr. Fisher, to form a government. I immediately consulted with Mr. Deakin, the late Premier, and it was agreed that, in view of the fact that it must necessarily take some time to organize the new government,

and conduct the elections rendered necessary by the change of government, it would be better for me to proceed to New Zealand and consult the government of that country in the meantime, returning to Australia after matters had been settled in New Zealand, and when the government of Australia, having completed its organization, would be in a position to discuss the proposition made by Canada. I accordingly sailed for New Zealand late in November for the purpose of discussing the question with Sir Joseph Ward, the Prime Minister of that country.

I found on my arrival there that the general election which had just taken place had resulted in favour of the government by a substantial majority, but as one or two of the ministers had been defeated in the contest the time of the Premier, Sir Joseph Ward, was much occupied in reorganizing his government, and, as a consequence, negotiations were somewhat slower than they otherwise would have been. I am pleased to be able to report, however, that negotiations once entered upon proved extremely satisfactory, and that New Zealand is quite prepared to join with Australia and Canada in approaching the Imperial government on the question of inaugurating the steamship service above referred to, and popularly known as the 'All Red Route,' and to assume her share of the cost. Immediately after receiving this assurance from the Prime Minister I returned to Australia, landing there on the afternoon of December the 25th, to find the holiday season on, parliament prorogued, and the ministry absent from Melbourne at their respective homes. It was, therefore, on in January before I was able to interview the new government, known as a Labour government, and led by the Hon. Mr. Fisher. Several interviews took place between the Prime Minister, the Postmaster General and myself, and it was finally agreed that I should place before the government a memorandum setting for the advantages of the route. Accordingly on the 1st of February I forwarded a memorandum on the question to the government, copy of which is attached to this report. On the 17th of the same month I received a letter, signed by the Postmaster General, also attached to this report, expressing approval of the action of Canada in sending a representative to Australia to discuss the question of the All Red Route, and sympathy with the object in view, acknowledging the possibility of benefit to the countries concerned, both from a commercial and Imperial point of view, but regretting their inability at present to enter into any definite arrangement as to subsidy, and expressing the hope that when the limitation imposed by the constitution on expenditure expired they would be in a position to offer practical aid to the advancement of the scheme. On receipt of this letter I represented to the government that what was most needed at the present time was the agreeing to the appointment of delegates to discuss with the Imperial government the details of the scheme as regards speed, frequency and subsidy, and the amount to be undertaken by each government, and on the 2nd of April received a further amended answer to the effect that should a conference be called by the British or Canadian government to discuss the advisability of instituting the All Red Line, the Australian government would appoint a representative as requested. Copy of this letter is herewith attached. I also beg to attach copy of my reply to the letter of the 2nd of April from the Postmaster General representing the Commonwealth of Australia.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) R. M. COULTER.

MELBOURNE, February 1, 1909.

The Honourable ANDREW FISHER,
Prime Minister of the Commonwealth of Australia,
Melbourne.

DEAR SIR,—In pursuance of the conversation which I had with you and the Postmaster General a few days ago, in reference to the appointment by your government of a representative of Australia who, in conjunction with representatives from New

Zealand and Canada, might approach the Imperial Government and urge upon it the taking of such steps as would insure, on the Atlantic and Pacific oceans between England, Australia and New Zealand via Canada, the establishment of a steamship service, which in equipment, speed, comfort and capacity would realize the wishes of all the above mentioned countries as expressed in the resolution adopted by the Colonial Conference held in England in 1907 and supported by the several delegates of the countries above mentioned.

Everything points to the coming trade importance of the Pacific ocean. Japan and the United States are fully alive to its future possibilities, and Canada, Australia and New Zealand, if they would hold their own, must be equally active with the other countries interested. The coming importance of the Pacific ocean as one of the great highways of commerce practically foreshadows the presence of representative ships of the great navies of all countries interested in the Pacific ocean; so much is this the case that Australia is now considering the question of the beginning of a navy for her own defence. No navy can be successful that is not backed by a swift and commodious merchant marine and the establishment of such a service as the one referred to above would give the very class of vessels required.

The exports from Australia to Canada have increased from £24,837 in 1903 to £124,698 in 1907 as shown in the following table:—

	Imports from Canada.	Exports to Canada.
1903	£352,939	£ 24,837
1904	222,064	29,352
1905	230,951	43,288
1906	303,751	732,688
1907	386,170	124,698

This growth has been without special effort on the part of the Australian government. No special representative from Australia has been sent to Canada to stimulate or direct this trade, and it is safe to say that the increase has been both a healthy and natural one and may be accepted as a fair indication of what could be accomplished if special efforts were made and improved facilities provided.

I beg to submit a table showing the increase in certain articles of commerce exported by Australia to Canada during the period of 1903 to 1907:—

Article.	Value, 1903.	Value. 1907.
Foodstuffs—		
Of animal origin—		
Meats	£ 978	£31,317
Other	633	14,149
Of vegetable origin	1,328	27,339
Spirits and alcohol	956	131
Animal substances—		
Hides and skins	7,153	9,108
Wool—greasy	800	11,903
" —scoured	956	.....
Other animal substances	200	74
Oils, fats and waxes	1,399	4,100
Charcoal	1,032	.....
Coal	821	406
Tin	4,728	16,156
Metals manufactured	342	628
Timber—undressed	360	4,398
All other articles	964	4,840

It will thus be seen that the exports of Australian produce for Canadian consumption have increased nearly sixfold in four years. The above figures give only the direct

exports to Canada. In addition she purchases indirectly, through London and elsewhere, large quantities of hides, skins, wool and other Australian products.

This trade—as above stated—has grown up in a natural way without special facilities or cultivation of any kind, other than the ordinary necessities of commerce, and at a time when the population of the Pacific slope is comparatively small, but Canada is growing rapidly in population, and in the near future British Columbia, the Canadian province bordering on the Pacific referred to above, will have a population that will warrant any country in seeking it as a customer. Its fertile valleys are rapidly filling, its mining and timber interests are beng vigorously developed, its people—like the people of your own country—maintain a high standard of living; moreover its seasons differ from that of Australia, the winter season of Canada being the season of production in Australia and vice versa.

The conditions, therefore, that favour exchange of trade products are unusually favourable as shown by the unaided natural increase during the last five years with a population that is insignificant in comparison with what it will be in ten years. Australia, on the other hand, beginning with Victoria and New South Wales, is entering upon large irrigation schemes and must necessarily, to defray the cost of these enterprises, adopt a policy of small holdings, intense culture and increased immigration.

It would not appear necessary to point out to an Australian government that, in a country as rich as Australia, this policy must soon induce a state of affairs in which the ability of the home market to consume her ever expanding products must disappear, and that if the producers of the country are to earn interest on their investments and secure an adequate return for their labour, markets outside of Australia must more and more be sought and found for the surplus products of the country. The development of such a trade will take time, energy and patience and should, I respectfully submit, receive the immediate attention of the Commonwealth government.

An examination of the different markets in considering the question of Australian export trade shows a condition of affairs decidedly favourable to Canda. In the United States you have a country that believes in ultra protection, has no special sentiment of friendship towards Australia any more than it has to any other country, and that not only produces nearly all the articles of trade which Australia will have to export, but is herself a large exporter of such products.

In Europe and Britain it would be necessary to compete with the cheap labour of the Mediterranean districts. Not so, however, with Canada, which either produces nothing at all of the many Australian products for export or produces them only in quantities which are entirely insufficient for her own requirements, although she is a large consumer of the same; moreover, these conditions—owing to climatic reasons—will always continue to prevail.

Further, the sentiment of Canada from every point of view is one of extreme friendliness towards Australia. The two people are of common origin, bound together by ties of common blood and kinship, and by the fact that they are members of the same Empire and are equally interested in consolidating and drawing closer together the different units which go to form that Empire.

In addition, western Canada is a new and ever-growing market whose business connections are only being formed, and therefore at the present time the most favourable market for Australia to cultivate. These connections once firmly made may become more or less permanent, and it will be difficult later to break them up. California now exports to Canada, under conditions of high-priced labour, large quantities of the articles of trade which Australia either now has or soon will have to export owing to her rapid development. Australia, with improved transportation facilities, ought to easily hold her own and acquire a large and profitable share of the trade in Canada. A profitable trade in dried and other fruits, nuts, &c., can be developed with western Canada, and Australia has the advantage of cheapness in transportation by an all-water route from Sydney to Vancouver, whereas the products

of southern Europe would be subject to heavy railway transportion charges across the Dominion.

An examination of the table given below shows the total Canadian imports of various articles of commerce for the nine months ending March 31, 1907, and the quantities supplied by Australia:—

(That the imports are given for a period of nine months only is due to the fact that in 1907 Canada altered the ending of the financial year from June 30 to March 31.)

	Total.	From Australia.
Butter ..Lbs.	868,348	218,943
Hides and skins..Value	$5.677,425	$ 19,474
Meats canned.. "	39,376	4,526
Wool..Lbs.	3,928,791	125,563
Sheep, alive..No.	73,463	None.
Mutton..Lbs.	1,036,289	1,028,551
Jams and jellies..Value	$ 289,089	9,288
Fruits, nuts, &c.. "	2,766,314	None.

In the following items the figures for Australia are taken from the Australian returns for the calendar year of 1907:—

	Imports into Canada for nine months.	From Australia for year.
Eggs .. doz.	661,104	19,564
Honey .. lbs.	316,498	1,200
Sausage Casings .. £	13,739	39
Raisins .. lbs.	14,567,231	497,693
Apples.. barrels	43,111	centals, 1,350
Oranges and lemons.. boxes	762,821	" 448
Wine (non-sparkling) .. gal.	550,184	314

There are many lines in which Australia has yet sent little or nothing. The following are some of these lines with the amount of value imported for a full twelve months of 1906:—

Maize .. bushels.	11,316,197
Wheat and flour .. tons.	4,191
Vermicelli and Macaroni ..lbs.	2,793,579
Broom corn .. value.	$ 196,084
Cocoanuts .. "	66,157
Currants .. lbs.	10,188,799
Dates .. "	2,144,451
Figs .. "	2,874,013
Prunes .. "	6,992,257
Almonds .. "	1,729,436
Walnuts .. "	1,083,303
Greases .. "	8,276,451
Hair .. "	574,000
Beef, salted .. "	2,374,515
Meat, dried and smoked .. "	1,453,917
Soap, common .. "	1,688,698

It is not contended that Australia could supply the whole demand for these articles, but she could easily supply a much greater number of these products than she has hitherto done, and she could out-distance all competitors in western Canada, which she reaches by an all-water route, and where the population will be several times as large as it now is in the near future and where there is a constant demand for every article of trade in the above list.

I may add that every state in the Commonwealth, Western Australia excepted, has shared in the exports from Australia to Canada. I am told by Mr. Larke, Canadian commissioner in Sydney, that even now articles of trade such as meat and butter have been limited by the capacity of the service and the infrequency of the monthly trips on the Canadian-Australian line. Fortnightly trips by larger and swifter mail steamers, with the consequent development of trade, would ultimately cause excellent cargo steamers being placed on the route of the Canadian-Australian line, thus obviating the existing disabilities to the material advantage of the Commonwealth.

Canada is becoming rapidly a populous country, with a leisure class who indulge extensively in travel in Europe, because no other comfortable sea trip is available, but, with a more frequent and speedy service between Australia, New Zealand and Canada, a radiation of travel would take place that would cause to be spent annually thousands of pounds in Australia and New Zealand by tourists, and in addition give to these countries a splendid advertisement as to the richness of the soil and the opportunities which await the emigrant, capitalist and business man in both countries. What is said of Canada in regard to the question of travel may also be said of the United States, which has a much larger and a much wealthier population; moreover, a large class of English and European travellers who now halt at Vancouver, retracing their steps through America, would—if a fortnightly service of swift and comfortable steamers were available on the Canadian-Australian line—return to their homes via Australia and New Zealand.

Canada's experience proves that the tourist, well pleased with what he has seen, upon his return to his own country does much to advertise and make known to his fellow-countrymen the advantages and resources of the country in which he has travelled. The tourist who has travelled through Canada has proved on his return one of the best emigration agents it was possible to secure. Australia wants the immigrant as Canada does for the development of her lands.

The fact that a white Australia has been determined upon involves the necessity of obtaining a white population as speedily as possible, and everything that tends to annihilate space and time tends to remove the only disadvantage under which Australia lives—namely, the isolation arising from her remoteness from the world's centres. The advantages of Australia have only to be made known to the world to attract a population, such as she desires, and one of the best methods of making these advantages known to the world would be the influx of travellers, tourists and business men that would come as a result of the inauguration of the All Red route.

If the All Red Route service were inaugurated, Australia—although the smallest contributor stands easily to become the greatest beneficiary as regards the large expenditure of money necesarily involved in the carrying out of the scheme.

It is estimated that the expenditure of the Pacific end of the service will be somewhat over £600,000, and Australia being the terminus of the route will necessarily receive not less than three-fourths of the amount expended. Thus, for a comparatively small expenditure, Australia will secure the disbursement within her borders of over £400,000 per annum. This is not a bad investment, even if you separate it from every other advantage which must necessarily follow the inauguration of such a service.

I take for granted that the different countries which now go to make up the British nation intend to remain within the empire, and that, like Canada, not only is it their ambition and desire, but their firm determinaton to work out their different destinies in close connection with the motherland. If so, then it must be manifest to each and all of them that the more the different units of the empire commingle and associate with each other, and the more they can learn of each other's weaknesses and strength, ambitions, hopes and fears, the greater possibility of helping each other in working out their different futures within the confines of that empire we all love so well, of whose past achievements we are so justly proud, and in the glory, usefulness and permanency of whose future we have the utmost confidence and hope.

Nothing will tend to produce the state of affairs so requisite to such an understanding or promote the possibility of mutual helpfulness so much as closer communication, which alone can be brought about by a quicker, more modern and more frequent mail service. It should stimulate and quicken trade, increase communication and promote exchange in thought. It should promote travel and intercourse and induce a better knowledge and a better understanding of each other. If carried out as intended it will bring London within 27 days of Sydney, or four days closer than it is under the present mail service, and give it a gain of eight days on the round trip. It will bring Australia, Canada and the United States much closer than at present, and must, from an Imperial as well as a local and business standpoint, prove of an immense material advantage to all the countries concerned. It is true that mail steamers as a rule would carry but little through cargo to the British markets, but they would carry through express and valuable parcels and a very considerable amount of the traffic that would result from improved facilities. Nothing could be more instructive than the history of the mail service between San Francisco and Sydney via Auckland. Notwithstanding the fact that the United States was and is a highly protective country, and that she has pursued her usual policy of endeavouring to sell all she could to, and buy as little as possible from, the country with which she was trading, the trade in 1906 amounted to several millions sterling, and had the United States followed a fair and generous policy of 'give and take' with the Commonwealth, it would no doubt have developed much more rapidly and have attained a much larger aggregate.

The mail steamers did not carry this trade, but they carried the men and letters by which the trade was developed and pushed forward. What was done under these circumstances with the United States can now be done with Canada with much more advantage to Australia, inasmuch as Australia has reached a stage in her development when an outside market for products of intense culture has become a necessity. This can be obtained in Canada with little difficulty, as the Commonwealth will be developing trade with a country which has every desire to cultivate intimate trade relations, and has every reason to be friendly and fair, and, like Australia, anxious in every possible way to draw closer the bonds of empire.

May I add in conclusion that the New Zealand government has expressed its intention of joining Canada in approaching the Imperial government for the purpose of perfecting a scheme by which effect may be given to the resolutions passed at the Colonial Conference held in England in 1907 for the purpose of securing the best results within the Empire from a trade standpoint, and, by giving improved and quicker transportation and communication, promote a greater feeling of unity and create a stronger bond of empire.

It remains for Australia to decide whether another link will b forged in the chain of empire and another step taken towards realizing the dream of the British race, namely, the formation of, to use the words of a recent English writer, 'an Empire with a future before it, longer and more glorious than its past.'

I venture to express the hope that your government may be able to reach a conclusion favourable to joining New Zealand and Canada in their petition to the Imperial authorities in regard to this service.

I have the honour to be, dear sir,

Your obedient servant,

(Sgd.) R. M. COULTER,

Deputy Postmaster General of Canada.

COMMONWEALTH OF AUSTRALIA,
POSTMASTER GENERAL,
MELBOURNE, February 17, 1909.

MY DEAR DR. COULTER,—As you are about to return to Canada, I desire, on behalf of this government, to acknowledge with satisfaction the action of the Canadian government in commissioning you to visit Australia, and also to express our high appreciation of the spirit in which your negotiations with us were conducted.

I should like to add that this government views with interest and sympathy the object of your mission. We are fully sensible of the great commercial benefits, both to Australia and Canada, which would ensue from speedier and more frequent communication between these countries; and we also realize the beneficial effects to us, as members of the same empire, of freer intercourse between Canadians and Australians. This government, therefore, regrets being precluded from entering at present into any definite engagement as to subsidy to the proposed mail and passenger service between Vancouver and Australia. But when the limitation imposed by the constitution on our expenditure expires, as it will do shortly, we may then be in a position to offer some practical aid towards the proposed fleet.

As to the appointment of a delegate to represent Australia at a conference in London, I regret that, in the absence of the Prime Minister and several other colleagues, I am for the present unable to give you a decisive assurance. I undertake, however, to bring the matter speedily before the Cabinet, and to acquaint you of our decision without delay.

With best wishes from colleagues and self,

I remain, faithfully yours,

(Sgd.) JOSIAH THOMAS.

DR. COULTER,
(Deputy Postmaster General, Canada)
Melbourne.

COMMONWEALTH OF AUSTRALIA.
POSTMASTER GENERAL.
MELBOURNE, April 2, 1909.

DEAR DR. COULTER,—Since writing the communication which I sent you, dated 16th February last, relative to the proposals put forward by you in connection with the All Red Line of mail steamers, I have had the opportunity of consulting the Prime Minister and my other colleagues in the matter, and am now in a position to state that should the proposed conference be called by the British or the Canadian government to discuss the advisability of instituting an All Red Line our government will be represented thereat.

I may, however, add that our representative would be instructed to urge that the steamers to be employed in the service should be owned and controlled by the several government concerned. The main object of the enterprise being to knit together more closely scattered portions of the empire, we are convinced that only by government ownership can this object be attained with the maximum advantage to our respective communities.

Trusting your stay in Australia has been of a pleasant nature,

I am yours faithfully,

(Sgd.) JOSIAH THOMAS,
Postmaster General.

MELBOURNE, April 14, 1909.

The Hon. Mr. THOMAS,
Postmaster General,
The Australian Commonwealth,
Melbourne.

MY DEAR MR. THOMAS.—I have the honour to acknowledge receipt of your letter of April 2nd in further reference to the proposals put before you by me in connection with an All Red line of mail steamers, in which you state that having had the opportunity of consulting the Prime Minister and your colleagues in this question you were able to inform me that should the proposed conference be called by the British or Canadian government to discuss the advisability of instituting an All Red line between Britain, New Zealand and Australia via Canada, your government would be represented thereat, and to express appreciation at your action.

I have forwarded the contents of your communication to the Prime Minister of Canada, and no doubt in due time you will hear further from the Canadian government on this subject.

In conclusion, permit me to express to you my very great appreciation of the unfailing kindness of the Prime Minister, yourself and colleagues since my arrival in Australia. I can assure you that the attitude of the government, of which you have the honour to be a member, towards me as the representative of Canada in this matter has made my stay in Australia a very pleasant one.

Again thanking you for the kindness and courtesy which I have experienced at the hands of yourself and colleagues.

Believe me to be,
Sincerely yours,
(Sgd.) R. M. COULTER.

(55)

REPORT

OF THE

OTTAWA IMPROVEMENT COMMISSION

FOR THE FISCAL YEAR ENDING MARCH 31, 1909.

During the year the expenditure was $57,364.33, which included $21,455.00, the amount required to redeem debenture No. 5. Eleven debentures, each for the same amount, still remain in force.

The amount available for expenditure, including a second contribution from the Corporation of Ottawa, for improving Bronson Park, was $66,483.01, and the balance on hand at the end of the fiscal year was $9,118.68. The amount expended on construction was $23,007.37, and for maintenance, $11,363.20.

Construction work was continued on National and Patterson's Creek Parks, while that on Bronson Park was completed. Some slight repairs were made to other works and the maintenance of all the works was carried on as usual.

Annexed hereto is a statement of receipts and expenditure for the fiscal year and from the beginning of the Commission's operations to the 31st March, 1909.

The work done was as follows:—

Patterson's Creek Parks.. .. .. $10,320.21

During the winter of 1908-9, after the water had been let out of the Rideau Canal, about 10,000 cubic yards of mud was taken from the bed of the creek and used to fill in an area 30 feet wide between the stone wall surrounding the creek and the boundary of the park property. This 30 foot strip extends from O'Connor St. westwardly to Clemow Avenue. A stone wall 300 feet long, 7 feet high and 4 feet wide was built around the little island in that part of the creek east of O'Connor Street, the stone being taken from the Ordnance quarry at the end of LeBreton Street. The 1900 feet of stone wall around the creek, built the previous year, was levelled off and prepared for the concrete coping.

National Park.. .. .. $7,309.77

Three hundred toise of limestone was quarried, broken and delivered for the road to be built from the foot of the hill at the western end of the park and along the southern boundary, and also for filling in 2,500 feet of surface drains, 2 feet wide and 2 feet 6 inches deep, laid throughout the park. Trees, principally white elms, and shrubs from the Commission's nurseries at Rockcliffe and the Experimental Farm, about 2,000 in all, were planted. Grading and filling for a portion of the bridle path along the road above mentioned, was done, a length of a quarter of a mile being built. The mile speedway was graded, weeded and rolled.

Bronson Park.. .. .. $2,691.58

A ledge of rock containing about 400 cubic yards was removed from the base of the cliff to level off the surface of the park, the material being carted away to Patter-

son's creek and used for drains. The grading, terracing, sodding and planting of the park was finished, the walks and two sets of concrete stairs constructed, and the park completed.

Rockcliffe Park.. .. .. $928.89

The large summer house overlooking Governor's Bay was completed and the hill on which the house is situated and the approach thereto graded.

Monkland Avenue.. .. .. $820.68

210 toise of rubble stone for the bottom of the roadway was quarried and delivered on the site of the work.

Minto Bridge.. .. .. $170.47

The expenditure was for repairing the flooring of the bridge.

Strathcona Park.. .. .. $38.00

Repairs were made to the riprap wall along the Rideau River front.

H. N. BATE,
Chairman.

STEPHEN E. O'BRIEN,
Secretary.

THE OTTAWA IMPROVEMENT COMMISSION.

STATEMENT OF RECEIPTS AND EXPENDITURES UP TO 31st MARCH, 1909.

Receipts.	For fiscal year ending March 31, 1909.	Total.
Balance on hand..	$ 404.01	
On deposit in Savings Bank, Bank of Ottawa..	5,000.00	
Government Grant..	60,000.00	$585,000.00
Miscellaneous, including $1,000 from the City for Bronson park	1,079.00	4,823.74
Interest..	....	1,330.31
Debentures..	....	270,373.84
	$ 66,483.01	$861,527.89

SESSIONAL PAPER No. 55

	Expenditures.	
Princess Louise Vista	....	$ 5,864.14
Rideau Hall Grounds	....	1,053.86
City Streets	....	15,512.24
Storage Shed	....	2,246.52
Baxter, Keefer & McKay Properties	....	8,986.10
C.A.R. Subway	....	13,197.24
Dow's Lake Causeway	....	24,315.85
Syenite	....	3,514.75
Cartier Square	....	213.34
King Edward Avenue	....	92,237.39
Clemow Avenue	....	23,013.30
Green and Maple Islands	....	7,698.38
Somerset Street Park	....	3,420.74
Road Machinery	....	11,870.63
Minto Bridge	....	41,152.74
Minto Bridge Maintenance	170.47	3,986.16
King Edward Avenue Maintenance	1,077.61	10,012.78
Strathcona Park	38.00	46,023.87
Strathcona Park Maintenance	1,079.49	3,510.67
Monkland Avenue	820.68	6,656.75
Rockcliffe Park	839.58	6,805.34
Rockcliffe Park Maintenance	1,320.92	9,339.12
Rideau Canal Driveway	928.89	171,165.50
Rideau Canal Driveway Maintenance	6,949.01	54,972.03
Somerset Street Park Maintenance	305.35	961.82
National Park	7,309.77	122,425.56
Bronson Park	2,691.58	3,736.28
King Edward Avenue Park	58.66	12,230.11
King Edward Avenue Park Maintenance	460.35	936.58
Patterson's Creek Parks	10,320.21	24,372.64
Contingencies	1,147.82	7,336.56
Office Expenses	337.24	3,484.12
Printing and Advertising	16.50	913.52
Interest	37.20	1,967.58
Debenture No. 5	21,455.00	107,275.00
	$57,364.33	$852,409.21
Balance on hand	9,118.68	9,118.68
	$66,483.01	$861,527.89

STEPHEN O'BRIEN,
Secretary.

RETURN

(65)

CANADIAN GOVERNMENT ANNUITIES.

Return, in pursuance of section 16 of the Government Annuities Act, 1908, containing a statement af the business done during the fiscal year ending March 31, 1909, together with a copy of the regulations made under section 13 of the said Act.

(First contract issued December 28, 1908.)

Applications for the purchase of Canadian Government Annuities were received as follows:—

IMMEDIATE ANNUITIES.

—	Male or Female.	No.	Amount of Annuities.	Amount of Purchase Money.	No.	Amount of Annuities.	Amount of Purchase Money.
			$ cts.	$ cts.		$ cts.	$ cts.
Purchasable by cash payment	Male ...	7	1,565 00	12,258 30	12	3,078 70	30,347 30
" "	Female.	5	1,513 70	18,089 00			

IMMEDIATE LAST SURVIVOR ANNUITIES.

Purchasable by cash payment	Man & wife.	1	300 00	2,893 00	1	300 00	2,893 00

DEFERRED ANNUITIES.

Plan A.

Purchasable by single payment (in advance)	Male ...	5	687 32	3,213 09			
	Female.	1	200 00	1,100 56			
Purchasable by periodical payments	Male ...	26	7,192 00	1,006 84			
	Female.	8	1,510 00	159 15			
Purchasable by lump sums and periodical payments	Male ...	1	600 00	2,662 65			
	Female.	2	400 00	2,220 00			
Purchasable by varying amounts..	Male.	12	.....	179 95			
	Female	1	.....	10 00	56	10,589 41	10,552 24

Plan B.

Purchasable by single payment (in advance)	Male.	4	784 46	3,111 84			
	Female	1	690 00	3,315 48			
Purchasable by periodical payments	Male ...	4	1,100 00	88 34			
	Female	1	150 00	3 12			
Purchasable by lump sums and periodical payments.....	Male ...	1	50 00	80 00	11	2,684 46	6,598 78
					80	16,652 57	56,391 32

Under plan A, in the event of death before the first payment of annuity falls due, the total amount which the annuitant has paid in with three per cent compound interest will be refunded to his or her legal representatives.

Under plan B, where the same annuity is obtainable for smaller payments, there will be no return in the event of death before the annuity becomes due.

SUMMARY.

Total number of annuitants (males, 61; females, 19)	80
Amount of annuities applied for	$16,652 27
Amount of purchase money received	50,391 32
Balance at credit of fund on March 31, 1909, after adding interest, $225 02 and paying annuities due, $389.54	$50,226 80
Number of annuities applied for to December 14, 1909	457
Amount of annuities applied for	$106,670 84
Amount of purchase money received	354,325 62

S. T. BASTEDO,
Superintendent.

Annuities Branch,
Department of Trade and Commerce,
December 15, 1909.

CERTIFIED *copy of a Report of the Committee of the Privy Council, approved by His Excellency the Deputy Governor General on the 26th September, 1908.*

On a memorandum dated 1st September, 1908, from the Minister of Trade and Commerce, submitting for the consideration of the Governor General in Council the following recommendation:—

That pursuant to 7-8 Edward VII, Chapter 5, An Act to authorize the issue of Government Annuities for Old Age, assented to on the 20th July, 1908, the following be the regulations to be proclaimed in connection therewith:—

1. That the Tables, hereto annexed, shall be the Tables to be used for determining the cost and value of an annuity, and such Tables shall remain in full force and effect until the same shall be revoked or modified, or until other Tables are authorized and substituted in their stead.

2. That the interest to be allowed in computing the value of all annuities shall be at the rate of 4 per cent per annum compounded yearly.

3. That the forms of application and contract and the provisions therein contained shall be such as may from time to time be approved by the Governor in Council. Provided however:—

(a) That in the case of immediate annuity, or in the case of a deferred annuity purchased by a single payment, a policy shall not issue until the premium therefor has been paid in full;

(b) That in the case of a deferred annuity purchased upon the instalment plan, a policy shall not issue until the premiums for two full years have been paid.

4. That the agents permanently appointed to assist in executing the provisions of this Act, and their remuneration, shall be such as may be recommended by the Minister of Trade and Commerce and approved by the Governor in Council; but the Minister may from time to time employ such temporary assistance as in his opinion is required, and upon such terms as may be agreed upon.

5. That evidence of age satisfactory to the Minister of Trade and Commerce must be furnished before any benefit shall become payable under any contract; but a certified extract from a family bible, a declaration of a parent before a Justice of the Peace, or the certificate of the Provincial Registrar of Births, Marriages and Deaths, will be accepted as proof sufficient.

6. That the Minister of Trade and Commerce may under and by virtue of powers in him vested by section 4 of this Act, issue such other policy as may be applied for and desired, and upon such terms and conditions as he may approve.

7. That payments on account of premiums shall be made to the order of the Receiver General of Canada, and may be forwarded to the Superintendent of the Annuities Branch, Ottawa, by registered letter, post office order, express order, or by postal note; or they may be made at the Branch in person; but payments on account of such premiums may, notwithstanding, be made to the Postmaster of any Post office in the Dominion of Canada where a Savings Bank has been established, and the Postmaster is hereby authorized and required to receive such payments, and to remit the same to the Superintendent of Annuities on the first day of each week with particulars concerning the same duly entered in a form to be provided for the purpose. Payments on account of premiums shall be received by the Postmaster during the hours at which his office is required to be open, and may be made in any multiples of twenty-five cents.

8. That each annuitant shall be furnished with a pass book in form to be approved by the Minister of Trade and Commerce, and that the annuitant shall be notified in the month of January in every year of the amount standing to his credit on the 31st December of the preceding year.

9. That payments on account of annuities shall be made quarterly unless otherwise expressly provided.

10. That all contracts shall be signed by the Accountant and Superintendent holding office under this Act at the time being.

11. That should payments made by an annuitant be not sufficient in the aggregate to earn the minimum annuity of $50 per annum, all moneys received, with compound interest at 3 per cent per annum, shall be returned to the annuitant.

The Committee submit the same for approval.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

CERTIFIED *copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 14th November, 1908.*

The Committee of the Privy Council, on the recommendation of the Minister of Trade and Commerce, advise that,—pursuant to 7-8 Edward VII, Chapter 5, 'An Act to authorize the issue of Government Annuities for Old Age' assented to on the 20th July, 1908,—the following amendments to the Regulations prescribed by Order in Council of the 26th September, 1908, be made:—

1. That all the words after the word 'until' in paragraph (b) of Clause 3, be struck out, and that the words 'payments amounting to the sum of $10 have been made' be substituted therefor:

2. That the words 'church record, baptismal certificate, or a statutory declaration of a brother, sister, uncle or aunt, clergyman, physician, school teacher, or other reputable person having knowledge thereof,' be inserted after the words 'Marriages and Deaths,' in the 5th Clause.

3. That the words 'Savings Bank' in Clause 7 be struck out, and that the words 'Money Order Office' be substituted therefor; and that the words 'and that Postmasters may be allowed a commission of one-third of one per cent on all moneys collected by or paid to them for the purchase of Annuities' be added at the end of the said Clause.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

CERTIFIED *copy of a Report of the Privy Council, approved by His Excellency the Governor General on the 16th November, 1908.*

The Committee of the Privy Council, on the recommendation of the Minister of Trade and Commerce, advise that,—pursuant to 7-8 Edward VII, Chapter 5, 'An Act to authorize the Issue of Government Annuities for Old Age,' assented to on the 20th July, 1908, and to Section 3 of the Regulations made, under the provisions thereof, on the 26th September, 1908,—the Forms of Application and Contract for an Immediate Annuity annexed hereto, be approved.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

AT THE GOVERNMENT HOUSE AT OTTAWA.

The 30th day of November, 1908.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency the Governor General in Council, in pursuance of the Act 7-8 Edward VII, Chapter 5, 'An Act to authorize the issue of Government Annuities for Old Age,' and of Section 3 of the Regulations made under the provisions thereof, bearing date the 26th September, 1908, is pleased to approve and doth hereby approve the annexed forms of Application and Contract for Deferred and Immediate Annuities.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

AT THE GOVERNMENT HOUSE AT OTTAWA.

The 30th day of November, 1908.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency the Governor General in Council, in pursuance of the Act 7-8 Edward VII, Chapter 5, 'An Act to authorize the issue of Government Annuities for Old Age,' and of Section 1 of the Regulations made under the provisions thereof, bearing date the 26th September, 1908, is pleased to order and it is hereby ordered that the Tables hereto annexed shall be and the same are hereby substituted for the Tables approved on the 26th September, 1908, and that these Tables shall remain in force and effect until the same shall be revoked or modified, or until other Tables are authorized and substituted in their stead.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

RETURN

(72)

TO AN ORDER OF THE HOUSE OF COMMONS, dated the 15th December, 1909, calling for a list of all experts, technical advisers, and special officers generally engaged by the Government in connection with the Naval Defence programme and its execution, giving names, special qualifications, duration of engagement and rate of remuneration, as well as the total amount expended to date under the above; also amounts expended to date for articles, books, instruments and objects of all kinds in connection with said Naval Defence Programme.

CHAS. MURPHY,
Secretary of State.

List of all experts, technical advisers, etc., employed in connection with the Naval Defence Programme.

Rear Admiral CHARLES E. KINGSMILL.
An Official of the Department of Marine and Fisheries.
No increase of salary to date.

Commander J. D. D. STEWART, R.N.
Seniority as Commander in the Royal Navy 30th June, 1909.
Technical Adviser on all Naval Matters.
Salary $3,500 per annum. Salary to date $1,108.32.

Lieutenant R. M. T. STEPHENS, R.N.
Seniority as Lieutenant in the Royal Navy 14th September, 1896.
Adviser on Gunnery Matters.
Salary $2,500 per annum. Salary to date $624.99.

Staff Paymaster P. J. LING, R.N.
Seniority as Staff Paymaster in Royal Navy 19th April, 1906.
Adviser on matters connected with Stores, Clothing, Victualling, &c.
Salary $2,500 per annum. Salary to date $791.66.

Commander STEWART, R.N., Lieutenant STEPHENS, R.N., and Staff Paymaster LING, R.N., have been lent from the Royal Navy for a period of two years.

In addition to these officers there are three Stenographers employed in the Naval Staff Office at a salary of $500 per annum each.

Total amount expended in connection with Naval Defence Programme, including travelling expenses of above officers, &c.:—

Salaries to date	$2,524.97
Travelling expenses	1,719,51
Sundries	559.76
Stationery, Printing, Furniture, &c.	376.42
Furniture, &c., (Paid by Public Works Department)	290.10
Total	$5,470.76

RETURN

(93)

To an order of the house of commons, dated the 18th November, 1909, showing the number of fatal accidents resulting from the use of explosives in the construction of railways and other public works in Canada, reported to either the Department of Railways and Canals, the Department of Public Works or the National Transcontinental Railway Commissioners, within the past three years; the nature of investigation, if held, after each accident; and what precautions have been taken to prevent or minimize the number of accidents from the use of explosives on construction work in Canada under control of Government Officials.

CHAS. MURPHY,
Secretary of State.

Return of Fatal Accidents resulting from use of Explosives in Construction of National Transcontinental Railway.

District.	Year.	Number.	Nature of Investigation.
"A"	1907	None.	
	1908	2	Investigation by coroner in all cases.
	1909	9	" " "
"B"	1907	3	" " "
	1908	12	" " "
	1909	2	" " "
"C" and "D"		None.	
"E"	1907 and 1908	None.	
	1909	9	Coroner's inquests were held in seven of these and decided no inquest was necessary in the other two.
"F"	1906 and 1907	13	Inquests held in all these cases.
	1907 and 1908	35	" " "
	1908	27	" " "
	1909	2	" " "
	Total	114	

The Commissioners of the Transcontinental also sent Dr. J. T. Donald an expert analyst and assayist to investigate and report on the use and quality of the explosives employed in District 'F.' He reported the principal causes of the accidents as careless or ignorant handling of the explosives. He stated that but little fault could be found with the quality of the explosives. Copy of report attached.

When accidents occurred report was at once sent by the Resident Engineer to the District Engineer giving name of party, probable cause of accident. The Contractor also invariably notified the Coroner for the District who looked into each case and held an inquiry if he deemed necessary. In the Province of Quebec inquests were held by the Coroner in all cases.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

Notice to Contractors and Subcontractors on the National Transcontinental Railway.

Your attention is called to the following abstract from Gillette's 'Rock Excavation,' published by M. C. Clark, of New York, and you are urgently requested to give as much publicity to this as possible among men in your employment handling explosives, in the hope that by so doing the danger may be minimized.

HUGH D. LUMSDEN,
Chief Engineer.

'Familiarity breeds contempt for the danger ever present in using dynamite, and the Manager of blasting operations must not rely merely upon orders to the men not to do this or that, but must be vigilant to observe whether orders are obeyed or ignored. Instant discharge of an employee should be the punishment for the slightest infraction of rules governing the use of explosives.

'Dynamite can be ignited with a match, and will usually burn up without exploding, provided that there are only a few sticks not confined in any way. This fact has much to do with breeding contempt for the danger attending using.

'When the paper cartridges feel greasy it is due to leakage of nitroglycerine. When a whittish cust, or efforescence, is found on the outside of a dynamite cartridge it indicates that the dynamite has been stored in a damp place, or that the 'dope' originally contained an excess of moisture. In either case the crust is nitrate of soda, that has dissolved out, and such dynamite is almost certain to leak nitroglycerine. It is unreliable, dangerous to handle, and should be destroyed at once. Greenish stains inside the cartridge indicate that the nitroglycerine is decomposing and is dangerous.

'When frozen it cannot be exploded by the ordinary caps used in blasting; nevertheless in its frozen state it is exceedingly sensitive to friction or to any breaking or cutting of the frozen cartridge. The Annual Report for 1898, of the Inspectors of Explosives of Great Britain, states that in that year there were eighty-one accidents in thawing dynamite, resulting in killing sixty-eight men and injuring ninety-seven. Accidents from other causes were 194 in number, resulting in the killing of 52 men and the injury of 216. This shows in a striking manner how dangerous a process the thawing of dynamite is. Dynamite should never be thawed by plunging the sticks into warm water. The only methods of thawing dynamite permitted by the Municipal Explosives Commission in New York City are thawing with manure, and thawing in a dry chamber heated by hot water entirely separate from the fire that heats the water.'

'The plan of placing a can of hot water in a small thawing magazine is one of the safest methods that can be adopted.'

'Dynamite that has been frozen and thawed a number of times often leaks, although before the freezing and thawing it did not leak at all. Hence a few sticks should be frozen and thawed three successive times and then tested for leakiness on brown paper.

'Long continued high temperature will develop leakiness in a poor quality of dynamite. Hence a few samples should be kept at a temperature of 85° to 90° F. for six consecutive days and nights and then tested for leakiness on brown paper.

'In charging: Dynamite should never be rammed, but merely pressed home; and a steel or iron tamping rod should never be used for that purpose. Remember that a drill hole tapers towards the bottom and the cartridges should never be so large as to require forcing to get them to the bottom. A cap should never be crimped onto the fuse with anything but a 'crimper' made for the purpose. When using a battery the final connection should not be made until all the workmen are at a safe distance.

'A miss-fire when an electric battery is used may be due to any one of several causes: (a) A blasting cap may be defective, due to the fact that water has penetrated the cap or to the fact that the platinum bridge in the cap has become unsoldered.

(b) Short-circuiting may be caused by a half-hitch taken with the fuse wire around the primer (which is a poor but common practice), which may have broken the insulation so as to permit the electric current to pass from one wire to the other without passing through the cap, but in this case charges in all other holes of the series will explode. (c) A defective splice in the connecting wires may have broken the circuit. (d) A fuse wire may have been broken in the process of tamping. (e)The battery may be overloaded. This last cause is one of the most common causes of miss-firing.

'Never load a battery up to its limit, but have a good margin of surety that it will explode all the caps in the series. Saunders is authority for the statement that a weak battery may explode part of the caps and leave the rest unexploded, due to variations in the resistance of the platinum bridges in the caps. In case of a miss-fire no one should approach the holes for half an hour if electric firing is used, and not for several hours if fuse firing is used.

'After waiting some time it may be necessary to remove part of the tamping in the hole and put down another primer. This is a dangerous operation at best, and if black powder is used a copper or wooden (never steel) spoon should be used in removing the tamping. In any case never remove the tamping entirely, but leave 3 or 4 inches of the cushion tamping above the charge in place. Then place several sticks of dynamite and a primer on top of the first charge and fire again.'

'The New York City rules forbid removing tamping at all, and require that a new hole shall be drilled not closer than 12 inches to the old one. Whenever an explosion fails to carry away the rock clear to the bottom of a drill hole, it is forbidden to begin drilling in the bottom of the old drill hole, as part of the former charge may remain unexploded in the bottom of the old hole and explode under the blows of the drill.'

'I question whether it is always safe practice to drill a new hole within a few inches of the old hole, hoping to be able to explode the charge in the old hole by a blast in the new hole. A safer practice is to drill the new hole several feet from the old hole and to a depth that will bring the bottom of the new hole on a level with the top of the charge in the old hole. Then upon blasting the new hole the shattered rock around the old hole may be removed, the dynamite exposed, a cap inserted and fired.'

'Don't thaw dynamite on stones.'

'Don't thaw dynamite in front of a kitchen fire or in an oven.'

'Don't thaw dynamite on a shovel.'

'Don't thaw dynamite in a hot water thawer placed on blacksmith's fire.

'Don't thaw dynamite with a candle.

'Don't rub cartridges in hands to complete thawing.'

'Don't leave dynamite in pockets of trousers and hang before a fire to dry.'

'Don't thaw dynamite in water over a fire.'

'A man laid some sticks of 75 per cent dynamite upon a flat stone which had previously been heated by placing hot coals upon it. While in the act of picking up a handful of thawed sticks he was blown to atoms. He was using this method, contrary to orders, because he had thawed dynamite all his life that way.'

INVESTIGATION AS TO USE AND QUALITY OF THE EXPLOSIVES USED ON T. C. RY. IN VICINITY OF KENORA.

The matter will be treated under the following heads:—

1. Districts covered by investigation.
2. Mode of storage and thawing of explosives.
3. Handling in blasting.
4. Sampling and analysis of explosives used.
5. Probable cause of accidents.
6. Prevention of accidents.

7. Appendices.

A. Map showing points visited.

B. Photos of magazines and thaw-houses.

C. Analysis of explosives.

D. Directions for handling explosives.

E. Accident causing death of Andreas Rasmussen.

The investigation was carried out by the undersigned, and his assistant, Mr. Normand Holland, F.C.S., February 11th-22nd, 1909.

1. The original intention was to confine the examination to the district lying north of Kenora, and on either side of Residency 30.

An accident occurring in this district on January 4th had caused the death of one Andreas Rasmussen, and the jury dealing with this death had affirmed that an enquiry was desirable.

But as only one brand of explosives was found in all the camps visited in this district, it was considered desirable that the examination be continued on another portion of the line.

After consultation with Mr. J. F. McIntosh, the Engineer who accompanied us, it was decided that portions of the line east and west of Contractor Parsons' headquarters on Canon lake should be visited. The investigation therefore covered portions of the line north of Kenora and north of Vermilion—points some 55 miles apart. On the accompanying map kindly supplied by Mr. McIntosh, points visited, cuts, tunnels, burrows, &c., are marked in red.

11 A. The magazines or storage houses at the various camps are log structures of various sizes, a common size being about 12 to 14 feet square. These structures are at reasonable distances from other buildings and appear well suited for the purpose. Some were locked and others not. The majority of these had no sign to indicate their purpose or to warn of danger. The supply of explosives in the store houses in the Kenora portion was small, about 70 cases of 50 pounds dynamite and 125 cannisters 25 pounds each black powder, being the largest quantity found.

II.—THAWING DYNAMITE.

Small huts at some distance from the store houses are in general use. These thaw-houses are log structures well plastered between the logs and with a tight roof. A comparatively large stove occupies the centre. Shelves along the walls serve to carry the sticks of dynamite. The floor is usually saw-dust, presumably to prevent friction on the spilt materials. The stove is close and well jointed and not likely to permit escape of sparks. Heavy fires are kept in these stoves, and the interior of the hut becomes very warm, a temperature of considerably over 100° F. being noted more than once. The wood in the walls and roofs becomes very dry and inflamable. As a consequence a number of these houses have taken fire, in one case with fatal results. These thaw-houses seem to be well adapted for heavy work where a large quantity of explosives is used. The fact that we could learn of only one instance where there had been loss of life in a thaw-house, speaks well for this mode of thawing, considering the large quantity of explosives used.

Another common method of thawing where only a small quantity is used at a time, is to immerse the sticks in hot water. A fire is built in the open, a tin can of water is heated, this is removed from the fire and the dynamite is put in. The same water is heated again and again. We are not able to learn of any accidents from this method of thawing.

III.—HANDLING IN BLASTING.

The holes are loaded and fired in the usual way either by lighting the fuse by means of a brand, or by one or other of the well known forms of battery. The loading

as a rule seemed to receive less care and attention than it deserved. The cartridges were roughly pushed into the holes and rammed. Moreover, the dynamite was frequently spilled or even poured out of the cartridges and left lying about the surface near the hole. This matter is further dealt with under the next heading.

Most of the batteries examined were satisfactory, but in one or two cases required much persuasion to bring about the firing of even a few holes, and such weak batteries may be the cause of mis-fires at times.

IV.—SAMPLING EXPLOSIVES AND TESTING SAME.

The following Explosives were met with during our Investigation.

1. Black powder, Nos. 1, 2 and 3.

2. Dynamite, 2 grades, viz.: 50 per cent and 60 per cent nitroglycerine, were mostly in evidence. A small quantity of the 40 per cent grade was found.

3. A composite explosive consisting of black powder and nitroglycerine in admixture.

4. A chlorate powder known as Verite.

The physical condition of the 40 per cent dynamite was not perfect. In all brands of this grade, there was more or less deterioration evidenced by the presence of nitrate of soda, crystalized on the outside of the cartridges and more or less 'leakage' of the nitroglycerine. In only one instance was the deterioration at all serious. This was a lot of five cases 'Standard' which had been received by McRea & Courtenay only a short time prior to our inspection. The Contractor, as soon as his attention was called to the matter ordered the destruction of what was left of the five cases. Later investigation showed that these faulty cases were from a lot that had been in the manufacturers' magazine for a long time. There is reason to believe they had been sent out on the supposition that they were in normal condition. The manufacturer was at once advised of the unsatisfactory condition of this lot. Except in the case of this 40 per cent dynamite, the physical condition of all the explosives seen, was highly satisfactory.

A chemical examination of a series of samples collected at various points throughout the area visited, has been made. If we except the five cases of 40 per cent goods, all of the samples of dynamite are fully up to the reputed percentage of nitroglycerine. The latter is of satisfactory degree of purity and no undesirable ingredients are present. Some of the samples, however, show a deficiency in Antacid.

The black powder samples are normal and in every way satisfactory.

The chlorite explosive Verite seems satisfactory notwithstanding the prejudice that in certain quarters exists against chlorate. Those who had used it declared it to be very satisfactory both in efficiency and safety.

In appendix C. the general composition of representative samples is shown.

V.—PROBABLE CAUSE OF ACCIDENTS.

Observation and enquiry leads to the belief that accidents are due to lack of knowledge of the properties of the explosives under varying conditions. This lack of knowledge leads to what is commonly spoken of as 'careless' handling. It would probably be more correct to call it ignorant handling. Such handling was in evidence along two lines, and there is reason to believe that along these two lines lies the cause of a large majority of the accidents.

A. In loading the holes with dynamite, there is not sufficient care in the disposal of the explosive. Instead of the careful placing of the explosive in the lower part of the hole it is at times spilt about the mouth of the hole and even poured from the shell as though it were sand. The result is that, in case of a mis-fire and attempt to clean

out the hole, some of this scattered explosive which had become mixed with the tamping is exploded by a blow from the drill and there is an accident. At other times, cartridges are spilt along the sides and then forced down into the holes. More or less of the explosive is thus forced into the joints and fractures which abound in the rock and form a menace to the workers who may have to clean out a sprung hole or handle the muck. The death of Andreas Rasmussen was probably caused by dynamite scattered in this way. See Appendix 'E.'

E. Premature discharge of a hole is frequently the cause of accidents. In such cases, it is generally difficult to get any reliable information as to procedure preceding the explosion. Usually those who are sufficiently near to see and know what was being done perish. There is good reason to believe that not a few of the premature discharges are traceable to imperfect or incomplete thawing of dynamite, or to incipient freezing. While on the boundary line between the liquid and the solid or frozen state, dynamite appears to be very sensitive to shock. A tamping that would produce no unsatisfactory results when the nitroglycerine is in ordinary liquid condition, may produce disastrous results when it is in the unstable condition of transition between liquid and solid states.

If proper attention be given to these two points, viz: careful disposition of the explosive in charging a hole and the use of dynamite only when its nitroglycerine is undoubtedly in normal liquid condition, the number of accidents would be very largely reduced indeed.

VI.—PREVENTION OF ACCIDENTS.

As already indicated, there is but little fault to be found with the explosives met with in our investigation. At the same time it is desiravle that manufacturers be asked to consider the following points which apply to the three brands of dynamite. Attention to these will widen the margin of safety in handling the explosives.

A. In some of the dynamite examined, the material as a whole was but faintly acid, yet portions of a cartridge would be found markedly acid in reaction. Every effort should be made to have any antacid used, thoroughly incorporated and the whole of uniform composition.

B. In many cases, the cartridges are too full. So much so that at one end, portions of the explosives extend beyond the paper shell. When such is the case, it is difficult to avoid spilling, with its attendant dangers. The dynamite should be completely closed in by the paper shell.

C. Any dynamite that has been stored for a long time should be carefully inspected and not sent out or used unless found to be in perfect condition.

None of the 40 per cent dynamite seen in the course of our investigation was in perfect condition. But little of this grade is used, and as a consequence, parcels of it are likely to be held in magazine for some considerable time. This may mean numerous freezings and thawing, and these are very likely to lead to deterioration and unreliability.

If those who handle the explosives would give heed to the 'Notice to Contractors and Sub-Contractors' issued by the Commissioners (Appendix D) there would be but very few accidents. The same may be said of the admirable sheets of directions found in every box of explosives sent out by two of the large Canadian manufacturers (Appendix D). It is doubtful if many of the men ever see these directions. Moreover, they are in languages (English and French) with which the majority of the men on the construction work have but a very limited acquaintance.

NOTICE TO CONTRACTORS AND SUB-CONTRACTORS.

The notice to Contractors and Sub-Contractors sent out by the Commissioners, contains one fruitful sentence that suggets what seems to be the best means of preventing these accidents with their deplorable loss of life, 'The manager of blasting

operations must not rely upon orders to the men to do this or that, but must be vigilant to observe whether orders are obeyed or ignored.'

Inspectoral and educational work along the lines followed by the Dominion and Ontario governments in other connections, offer in the opinion of the writer the best means of preventing accidents from explosives.

The Dominion government in 1907 placed Inspectors in the Canadian Packing Houses to protect the public against diseased and unwholesome meat and meat products.

The Ontario government has each summer for a number of years sent out trained men into mining districts of the province, who have gathered together the miners and given them instruction on rocks and minerals.

The writer would suggest the appointment of a few men, who might be known as inspectors of explosives (Great Britain has such officials). These men should be furnished with authority to visit factories and thoroughly inspect all parts of the process of manufacture, sampling where considered necessary or desirable. They should have authority to inspect stocks in magazines of manufacturers and contractors, and to order the destruction of any explosives showing deterioriation from storage or otherwise. It should be part of their duty to move about, where construction work is going on, to inspect the explosives, fuses, batteries, &c. They should gather the men at the various camps and explain to them (through an interpreter if necessary) and by means of brief printed directions in the native tongues of the various workers. They should mix with the gangs at work, noting their mode of handling explosives, pointing out mistakes that may come under their notice and commending good practice where met with.

It is believed manufacturers and contractors alike would welcome the appointment of such officials, and would facilitate the performance of their duties.

The appointment of a few men with proper qualifications for the work, viz: knowledge of the subject, ability to interest the workers, and possessed of the desire to save life, would be the very best means to prevent accidents and save valuable life.

The writer would strongly urge the serious consideration of this proposal.

J. T. DONALD.

Montreal, 5th March, 1909.

Appendix C 1.

FOUR SAMPLES DYNAMITE.

—	I.	II.	III.	IV.
Reaction	Acid.	Acid.	Acid.	Alkaline.
Starch iodine test	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.
	%	%	%	%
Moisture	1·85	1·88	2·22	2·25
Nitro-glycerine	60·10	52·05	60·89	51·72
Soda-nitrate	16·28	30·19	18·71	30·90
Wood meal, &c	21·77	15·88	18·18	15·13
	100·00	100·00	100·00	100·00

No. 1—"Standard"..... 60% dynamite. McRae & Courtenay's camps.
No. 2— " ..... 50% " " "
No. 3—"Ontario"..... 60% " Magazine at Kenora.
No. 4—"Hamilton"..... 50% " Tunnel Parson's contract.

J. T. DONALD.

Montreal, March 5, 1909.

APPENDIX C 2.

THREE SAMPLES BLACK POWDER.

—	I.	II.	III.
	%	%	%
Moisture	0·88	1·78	0·70
Pot. nitrate	74·46	70·47	75·21
Sulphur	9·78	10·45	9·35
Charcoal, &c.	14·90	17·30	14·74

No. 1—Stardard Explosives, No. 1 powder ..... McCaffrey's camp 7.
No. 2—Hamilton Powder Company, No. 2 powder..... Parson's camp 1.
No. 3—Standard Explosives, No. 3 powder..... McCaffrey's camp 7.

J. T. DONALD.

Montreal, March 5, 1909.

APPENDIX 'E.'

ANDREAS RASMUSSEN.

The facts of the case appear to be as follows:—A hole in cut No. 886 near Grindstone lake was sprung. This man was cleaning out the hole preparatory to reloading; an unexpected explosion occurred. Although it was on a comparatively small scale Rasmussen was struck on the head and killed. There can be no reasonable doubt that his drill struck some dynamite that had become mixed with the tamping, or had found a lodging place in some of the joints or crevices of the rock, as explained in section. Any dynamite struck in this way is, of course, likely to explode.

The foreman, George Doherty, who, before the coroner's jury that disposed the case, gave evidence that lead the jury to find the standard powder is an 'uncertain and dangerous explosive,' could not be found; according to all reports he had left the district and his whereabouts was unknown.

The general opinion was that anyone of the brands of dynamite is as safe or as dangerous as any other according to the treatment it receives with conditions under which it is used.

Our chemical examination of numerous samples confirms this view. We have obtained no evidence to show that Standard dynamite differs in any important respect from other brands.

J. T. DONALD.

Montreal, 5th March, 1909.

PETERBOROUGH, 26th November, 1909.

L. K. JONES, ESQ., Secretary,
Department of Railways and Canals,
Ottawa, Ont.

DEAR SIR,—I have your letter of 19th instant asking for information concerning on Order of the House (Mr. Robb), dated the 18th instant, asking for a return showing the number of fatal accidents resulting from the use of explosives in the construction of railways and other public works in Canada; and requesting that I forward you the information called for in so far as the works under my charge are concerned in order to the preparation of the above return.

During the past three years no fatal accidents have occurred on the works from the use of explosives, with the exception of the death of one man, H. Dowsley, which occurred last fall on Section 2 Ontario-Rice Lake Division, Dennon & Rogers contract, whose death may have been caused by explosives.

The facts as far as we know are as follows:—

On the 5th December, 1908, near lock-pit No. 5, foreman Godfrey and two men, R. Smith and H. Dowsley, made a small fire and were thawing out a piece of ¾-inch iron pipe which had become partially filled with earth and water, frozen solid, when the pipe exploded, seriously injuring Godfrey and the man Dowsley, the latter afterwards died in Belleville from his injuries. The men had been using the pipe for cleaning out holes drilled in the rock for blasting the same. I understand that a post-mortem examination was made when it was found that a piece of the pipe had penetrated his body. No further investigation was held as far as I know.

ALEX. J. GRANT,
Superintending Engineer.

RETURN

(97)

REGULATIONS OF THE NATIONAL PARKS OF CANADA.

RESIDENCE IN THE PARKS.

(Authorized by Order-in-Council 21st June, 1909.)

1. No person shall, without permission from the Minister of the Interior, reside permanently within other portions of the Parks than those sold or leased.

2. The Minister of the Interior shall have the power to cause such portions of the Parks as from time to time he may designate to be surveyed and laid out in building lots, for the construction thereon of buildings for ordinary habitation and purposes of trade and industry, and for the accommodation of persons resorting to the Parks, and may issue leases for such lots for any term not exceeding forty-two years, with the right of renewal, at rentals to be from time to time fixed by him; also to set apart such portions of the Parks as he may think proper for the sites of market-places, jails, court-houses, places of public worship, burying grounds, benevolent institutions, squares, and for other similar public purposes.

3. There shall be a reservation for the use of the public of one hundred feet in width along the shore of each lake, river, or stream within the Parks, and any grant, lease or other disposal of lands within the Parks shall be subject to such reservation.

4. All leases or licenses of occupation shall be in such form as may be approved by the Minister of the Interior and the Minister of Justice.

5. No timber an any lot leased for residential purposes, except so much as is actually necessary to be removed to make room for the building and reasonable access thereto, shall be cut or removed, except by permission of the Superintendent.

6. The location, design and general character of any buildings or fences to be erected shall be subject to the approval of the Superintendent and to the sanction of the Minister of the Interior.

7. Every person entering or passing into, across or through any of the Parks, shall, when requested to do so by the Superintendent, or any Forest Ranger, Game-guardian or any other officer having charge of or jurisdiction within such Parks, truthfully answer any inquiries made to him by such Superintendent, Ranger, Guardian or officer as to his name, his post office address, the duration or the proposed duration of his stay in the Park and the portion thereof he intends to visit or has visited, and shall give such other information of a similar nature as such Superintendent, Ranger, Guardian or other officer may ask him.

PRESERVATION OF PROPERTY.

8. The defacement of any object at any of the hot springs, of any of the natural rock formations, or of trees, timber, bridges, seats or other structures by cutting, written inscription or otherwise, and the throwing of any stones, sticks or other substances whatsoever into any of the springs or streams in the Parks are strictly forbidden.

9. No advertisements other than those issued or permitted by the Minister of the Interior shall be posted or displayed within the Parks.

10. (a) No person shall cut, remove, or injure any trees or timber, growing or dead, or remove or displace any mineal deposits or natural curiosities except by written permission of the Superintendent.

(b) Any mineral, rock, stone, timber or any other public property whatsoever taken from lands within the Parks without proper permission or without the rental, dues, or other charges provided for by the Regulations being paid thereon, shall be liable to seizure by the Superintendent, Forest Ranger, Game-guardian or other officer having jurisdiction within the Parks, whether or not such material has been removed from the Parks, and the material so seized may, unless required for public purposes, be disposed of by public auction, and if no bid equal to the moneys due thereon is made, may be disposed of by private sale.

(c.) In the discretion of the Superintendent, such material may be released upon payment of expenses and double the rental, dues and other charges fixed by the Regulations.

FIRES.

11. No person shall at any time set out or cause to be set out or started, any fire in the open air within the limits of the Parks, except for the purpose of cooking, obtaining warmth, or for some industrial purpose permitted by the Minister of the Interior to be carried on; and every person who makes or starts a fire in the open air for cooking or camping purposes shall:—

(a.) Select a bare rock whereon to kindle such a fire wherever possible, and if there be no bare rock in the neighbourhood, then a site on which there is the smallest quantity of vegetable matter, dead wood, branches, brushwood, dry leaves or resinous trees;

(b.) Clear the place in which he is about to light the fire by removing all vegetable matter, dead trees, branches, brushwood and dry leaves from the soil within a radius of ten feet from the fire;

(c.) Exercise and observe every possible precaution to prevent such fire from spreading, and carefully extinguish the same before quitting the place;

(d.) Any person who throws or drops any burning match, ashes from a pipe, lighted cigar or any other burning substance within the Parks shall completely extinguish before leaving the spot the fire of such match, ashes from a pipe, cigar or other burning substance.

12. Every person cutting timber within any of the Parks, and every person located in or travelling or passing through any of the Parks, shall be required to comply with all the provisions of any Act or Regulations established by the Government of the Dominion or of the Province in which such Park is situated for the protection of forests against fire, and any breach of such Act or Regulations shall be held to be a breach of the Regulations hereby established, and shall render the person making such breach liable to any penalty provided by these Regulations.

13. Any person who shall directly or indirectly, personally or through any servant, employee or agent, kindle a fire or let it run at large on any land not his own property; permit any fire to pass from his own land, or allow any fire under his charge, custody or control, or under the charge, custody or control of any servant, employee or agent, to run at large, with the result that such fire shall pass into any of the Parks, shall be liable, in addition to any penalty imposed by the Provincial Act, to the penalty imposed for any breach of these Regulations.

14. Every person in charge of any drive of timber or survey or exploring party or of any other party within the Parks, shall provide himself with a copy of these Regulations and shall see that those under his charge are fully informed of the provisions thereof; and in case a breach of these Regulations is committed by any of them, he shall be liable to the penalty for such breach as if it had been committed by himself,

unless he establishes that such breach was committed without his knowledge and contrary to his instructions; but such liability on the part of the person in charge of any such party shall not relieve any member of his party from personal liability for any such breach.

15. Every locomotive steam engine passing on a railroad through the Parks or through any part thereof shall, by the Company or authority using the same, be provided with and have in use all the most improved and efficient appliances to prevent the escape of fire from the furnace or ashpan, or from the smokestack of such engine, and it shall be the duty of every engineer in charge of any such engine to use all necessary means and appliances to prevent the escape of fire from any such locomotive.

16. Every railway company shall at all times keep the right of way free from weeds and other inflammable material, and in such condition as not to allow fire to spread thereon and therefrom through coals, cinders or sparks falling from or emitted from locomotive steam engines.

PREVENTION OF NUISANCES.

17. No rubbish or any matter of an offensive nature shall be deposited, except in such places and at such times and under such conditions as the Superintendent shall designate.

18. All property connected with the waterworks and served by the sewer system shall be connected therewith as provided by the Regulations in that behalf, unless exemption is granted by the Minister of the Interior.

19. (a) Any person camping within the Parks shall carefully clear up the ground on which his camp was located before his departure therefrom, and shall restore it as nearly as possible to its natural condition.

(b) All refuse shall be destroyed or buried.

(c.) Any guide accompanying a camping party shall be responsible for the carrying out of this provision, but the other members of the party shall not thereby be absolved from personal liability.

20. Persons shall not allowed to stand in groups or sit or lounge upon chairs, benches or other things in front of any public saloon, boarding house, hotel or place of public entertainment, or on any of the streets or sidewalks of the Parks so as to cause any obstruction to the free use of such street or sidewalk by foot passengers.

21. Persons who render themselves obnoxious by disorderly conduct or bad behavious, or who violate any of the Regulations of the Parks, may be summarily removed from the Park and will not allowed to return without permission in writing from the Superintendent.

22. All slaughter-houses, butcher-shops, fish-stalls, and any other business which from its nature is or may become offensive or obnoxious, shall be carried on only at such places and under such conditions as the Superintendent may designate in a license for the establishment of such business, and shall be subject at any time, on sixty day's notice in writing, delivered to the owner or lessee in person, or left at his place of residence or place of business, to removal to such other place as the Superintendent may designate. Every license issued under this clause, shall be subject to revocation at any time upon thirty days' notice to the licensee, and the business shall entirely cease on the revocation of the license.

PASTURAGE AND HAY.

23. No live stock shall be permitted to run at large, nor shall pigs, sheep or goats be brought into or kept within the Parks, except at such places and under such conditions as shall be designated by permission in writing from the Superintendent; provided, however, that licensed butchers may bring in and keep, for a period not exceed-

ing thirty days, and at such places and in the manner to be prescribed by the Superintendent, animals to be slaughtered for food purposes.

24. The Superintendent shall, from time to time, select and designate pasturing grounds within the Parks, upon which leaseholders may pasture milch cows and horses; but leaseholders availing themselves of this Regulation shall make provision satisfactory to the Superintendent for herding the animals and driving them to and from the pasture grounds.

25. All stock found pasturing, except where authorized, may be impounded and held until a fine be paid sufficient to cover the expenses of impounding such stock, feeding them while so impounded, and advertising; or the owner may be summoned and, on conviction shall be liable to fine. Failure to pay the fine within thirty days shall render the stock liable to be sold by the Superintendent, and the proceeds of such sale, after paying thereout the fine, cost of maintenance, advertising and sale, shall be paid by the Superintendent to the owner of the stock. The Superintendent may authorize any person to act as poundkeeker, the rates of remuneration to be settled by the Minister of the Interior.

26. Permission to cut hay within the Parks shall be obtained from the Superintendent, and the cutting shall be subject at all times to his supervision and control.

MINING.

27. The Minister of the Interior may issue licenses of occupation for the working of mines and the development of mining interests within the limits of the Parks, subject, however, to the approval by the Governor in Council as to terms, conditions and duration of such licenses of occupation.

28. No person shall take or use any stone, sand, gravel or other material in the Parks without a permit from the Superintendent; and for each permit a fee of twenty-five cents shall be paid.

29. Any person desiring to burn lime or manufacture brick or cement within the Parks shall obtain a permit from the Superintendent, defining the location of the kiln or brickyard, and pay a royalty of one half-cent per bushel for all lime burnt, and, for all brick manufactured a rate per thousand to be fixed by the Minister of the Interior.

HOT SPRINGS.

30. The waters of the hot springs shall be controlled by the Superintendent, and no person shall be permitted the use thereof without a license granted under authority of these Regulations.

31. The distribution of the waters shall be under the management and control of the Superintendent, and without his authority no person shall in any way interfere or tamper with any spring, pipes, valves, traps, tanks, or any other apparatus connected with the supply and distribution of said water.

32. The waters shall be supplied to bath houses using such waters under permission granted prior to the first day of January, 1909, at such rental per annum as may be fixed from time to time by Order in Council.

33. The Superintendent may at any time after two weeks' notice in writing shut off the supply of the said waters from any such bath house the lessee of which may be in arrear for rent, or who may have in any way infringed any of the provisions of this or the next succeeding clause.

34. The Superintendent or his authorized agent shall have free access for inspection at all reasonable times to any bath house or building using the waters of the Springs, or to any pipe leading to or within such bath house or building.

35. No further licenses for the use of the waters of the Hot Springs shall be granted without the authority of an Order in Council in each case.

LICENSES.

36. No person shall do business as a peddler, huckster or street vendor in the Parks without a license from the Superintendent, who shall have power to issue or to revoke such license in his discretion. The fee to be paid for such license shall be fixed by the Minister of the Interior.

37. Annual licenses may be issued by the Superintendent to guides, and no person shall be permitted to act in such capacity within the Parks without such a license in good standing. No license to act as a guide shall be granted to any person under eighteen years of age. Each such license shall expire on the thirty-first day of March next after the date of its issue. The fee to be charged for such license shall be five dollars.

38. Licenses so granted may be cancelled by the Superintendent for failure to observe, or for the infraction of, the Rocky Mountains Park Act or any regulation made thereunder or any Provincial law or regulations for the protection of game or fish or the prevention of fire.

39. No guide shall be entitled to charge for his services more than fifty cents per hour.

40. Every guide employed by any party travelling through any of the Parks shall, before the departure of such party notify the Superintendent of the number, the names and addresses of the members of the party, the date of departure, the route to be travelled, the proposed duration of their stay in such park, and the firearms carried by the party.

41. The head guide shall be responsible for the good behaviour of his assistants and camp helpers and for the observance of these Regulations by them and by the members of the party with which he is employed; but such responsibility on the part of the head guide shall not free any member of the party from any personal responsibility or liability for any breach of these Regulations.

42. All drivers of public vehicles and all boatmen shall be licensed. The fee for a license shall be one dollar; and such license may be revoked and cancelled at any time by the Superintendent if it is proved to his satisfaction that the holder thereof has been guilty of incivility, insobriety or misconduct while discharging his duties.

43. The Minister of the Interior may issue a license good for one year from 1st May in each year to any person or persons undertaking to place on any waters within the Parks a steam yacht or other vessel or vessels suitable for the conveyance of passengers, upon such person or persons paying the fee fixed by the Minister therefor and in all respects complying with the Steamboat, Inspection Act or Acts regulating steam and other vessels. The maximum fare which may be charged for the conveyance of passengers in such boats shall not exceed, when running on regular trips, up to eight miles, fifty cents; above eight and up to twelve miles, seventy-five cents; over twelve miles, one dollar.

44. Any person keeping bicycles, rowboats or canoes for hire shall obtain a license, paying therefor the fees fixed by the Minister of the Interior.

45. The Superintendent shall, upon application, furnish each owner of a dog or bitch, upon payment of a fee of three dollars in the case of a dog and five dollars in the case of a bitch, with a license authorizing him to keep such dog or bitch; such license shall expire on the thirtieth day of June in each year and shall then be renewed.

46. Any unlicensed dog or bitch may be impounded, and shall be released only upon payment of double license fees and costs, and if such charges are not paid within forty-eight hours, such dog or bitch may be destroyed, without compensation to the owner thereof.

47. No person shall keep a restaurant, tea-room, lunch counter or refreshment stand; a theatre or similar place of amusement; a pool, billiard or bagatelle table; a

bowling alley or shooting gallery for use by the public, without a license, which may be issued or revoked by the Superintendent in his discretion. Such licenses shall expire on the thirty-first of May next after the date of issue, and the fees shall be the following:—

(a.) For one billiard or pool table, twenty dollars, and for each additional table ten dollars.

(b.) For one bagatelle, mississippi, pigeon-hole or other table or board with balls, twenty dollars, and for every additional table ten dollars.

(c.) For a theatre or similar place of amusement, a restaurant, tea room, lunch counter, refreshment stand, bowling alley or shooting gallery, ten dollars.

48. No circus shall exhibit within the Parks without a license, which may be issued or revoked by the Superintendent in his discretion, and for which license a fee of ten dollars for each day of exhibition shall be paid.

SALE OF LIQUOR.

49. No intoxicating liquor shall be sold within the Parks without a license.

LIVERY STABLES.

50. Licenses to carry on livery stables may be issued by the Superintendent in his discretion. Such licenses shall expire on the thirty-first day of May next after the date of issue, and the fees therefor shall be as follows:—

(a.) For the first vehicle, drawn by two or more horses	$ 10 00
(b.) For the second vehicle, owned by the same licensee and drawn by two or more horses	8 00
(c.) For the third vehicle, owned by the same licensee and drawn by two or more horses	6 00
(d.) For the fourth and each additional vehicle owned by the same licensee and drawn by two or more horses	5 00
(e). And, for the first vehicle drawn, by one horse	6 00
(f.) For the second vehicle, owned by the same licensee, and drawn by one horse	5 00
(g.) For the third and each additional vehicle, owned by the same licensee, and drawn by one horse	4 00
(h.) For the first saddle horse	4 00
(i.) For each additional saddle horse	2 00

51. The rates to be charged for the use of vehicles, saddle horses, or other conveyances shall be subject to the approval of the Minister of the Interior; and no greater charge than that fixed by a tariff approved by the Minister shall be made.

52. The rates for cartage of freight or general merchandise shall be subject to agreement between the parties interested.

53. Every person who keeps a livery stable or provides outfits for parties travelling through any of the Parks shall keep a record of the parties outfitted by him, the number of persons, their names and addresses, the guides accompanying them, the date of departure, their destination and route of travel, the time they propose to remain in such Park, and the firearms carried by the party. Such record shall be open at any time to inspection by the Superintendent, Ranger, Guardian or other officer having jurisdiction in the Parks.

54. Every such livery stable keeper or outfitter shall be furnished by the Superintendent with copies of these Regulations and shall furnish each party outfitted by him with a copy thereof.

DRIVING.

55. No person shall ride or drive on or over any bridge within the Parks faster than a walk; furious riding or driving on public roads is also prohibited.

56. Horses driven with sleights shall be provided with bells.

57. No person shall ride or drive across any sidewalk, boulevard, vacant lot or common within the Parks without written permission of the Superintendent. Horse racing is prohibited, except in such places as may be set apart for the purpose by the Superintendent.

58. The Superintendent may make such additional rules as may be necessary to provide for the safety of the public travel on the roads within the Parks.

59. Horses in use or attached to any vehicle shall not be allowed to stand without being tied, or in charge of some grown person.

60. The tires on wagons used for freighting purposes on the roads constructed by the Government within the Parks shall be at least four inches in width. This regulation shall come into force on the 1st day of April, 1910. All vehicles shall be provided with brakes; and it shall be the duty of the Superintendent to condemn and prohibit the use of any vehicle which is in his opinion unsafe.

PROTECTION OF GAME.

61. No person shall hunt, take, kill, wound, injure or destroy, or pursue with such intent, any wild animal or bird within the Parks.

62. No dog shall be allowed to run at large in any townsite or other portions of the Parks. Any dog so running at large may be impounded, and shall only be released on payment of a fine of not less than two dollars and costs. If not claimed and charges paid within forty-eight hours the dog may be destroyed.

63. Any dog so impounded a second time may be destroyed without the option of a fine. The owner of any dog destroyed under these Regulations shall have no claim for compensation.

64 (a.) No person shall fish for, take, catch or kill, from or in any of the waters of the Parks any fish that inhabit such waters, or attempt so to do, with any kind of net, seine or snare, rack, trap or weir, or night line, or set line, or in any other way than by hook and line.

(b.) No person shall use dynamite or any other explosive, or any poison, for the purpose of killing, destroying, injuring, or taking fish in or from the said waters.

(c.) Fishing for the purpose, or with the object of selling, bartering or trafficking in the fish so taken is hereby prohibited.

65 (a.) No person shall, in or from the waters of the Parks, kill or retain or carry away any fish less than six inches in length, and when any fish of a lenght less than six inches is taken or caught the same shall forthwith be returned to the water by the person taking or catching the same without unnecessary injury.

(b.) No person shall, in or from the waters of the Parks, kill, retain or carry away, more than fifteen fish in one day.

66. No fish shall be taken between the fifteenth day of September and the fifteenth day of May. Fishing may be prohibited in any of the waters of the Parks, or limited therein to any specified season of the year by the order of the Minister of the Interior.

67. All nets, seines, fish traps, and all snares, traps or other devices for taking fish and game unlawfully found within any of the Parks, shall be subject to confiscation; and the person or persons in whose possession such nets, seines, traps, snares or other devices are found, shall be subject to the penalties provided by the Regulations.

68. The outfits of all persons found hunting or trapping, or fishing illegally, or having in their possession game or fish killed within the Parks in contravention of

Clauses 61, 64, 65 or 66 of these Regulations; also such game or fish taken or had in possession by such persons, shall be subject to seizure and confiscation; but such seizure and confiscation shall not relieve such persons from the penalties provided for an infraction of these Regulations.

69. The illegal possession of each and every head of game shall be a separate offence.

70. The Superintendent of any of the Parks, or in his absence any person occupying that position, or any game guardian appointed by the Minister of the Interior, shall have authority to enter upon and search the premises of any person or persons whom he or they have reason to suspect and do suspect of having fish or game in their possession contrary to any of the provisions of these regulations, and if such person or persons shall be found to be in possession of fish or game contrary to the provisions of these regulations, such fish or game may be confiscated.

71. No person residing in or visiting or travelling through the Parks, except a duly authorized game guardian, shall have in his possession or carry any rifle, shot gun or other firearm, unless such rifle, shot gun or other firearm shall have been sealed by the Superintendent or other officer authorized by the Superintendent; and no such seal shall be broken within the limits of the Parks except as hereinafter provided.

72. Any unsealed rifle, shot gun or other firearm found within any of the Parks may be confiscated by the Superintendent, ranger, guardian or other officer.

73. The head guide in charge of any party shall be responsible for seeing that the rifles, guns and other firearms are sealed as hereinbefore required, and that such seals are kept unbroken within the limits of the Park. One extra seal for each rifle, gun or other firearm, and a sealer shall be given by the Superintendent to the guide in charge of any party proposing to go outside the limits of the Park, and on the return of the party to the Park the guide shall again seal all the rifles, guns or other firearms in his party; and such seals shall be broken only by the Superintendent, guardian, or other officer authorized for that purpose by the Superintendent. This provision shall not, however, exempt anyone from personal liability for the infraction of these Regulations.

74. Every guide entrusted with seals shall account therefor to the Superintendent, who may require him to furnish evidence by statutory declaration or otherwise that no improper use has been made thereof.

GAME GUARDIANS.

75. Game guardians may be appointed by the Minister of the Interior; and such guardians shall have authority to enforce the laws and regulations in force within the Parks. Each game guardian shall be furnished with a badge of office, which shall be displayed by him on every occasion when he is exercising the authority of his office.

76. Every game guardian appointed shall take an oath of office as prescribed by the Minister of the Interior.

77. Each head guide shall have the authority of a game guardian for the enforcement of the laws and regulations relating to the protection of game and fish and the prevention of fire.

MISCELLANEOUS.

78. Every description of gaming, and all playing of faro, cards, dice, or other games of chance for stakes of money or other things of value, and all betting and wagering on any such games of chance, are strictly forbidden and prohibited within the Parks; and no person shall play at or allow to be played on his premises, or assist, or be engaged in any way in any description of gaming, as aforesaid.

79. The use of automobiles of every kind is prohibited on any road or elsewhere within the limits of the Parks.

80. Persons living or holding lands under lease within townsites shall remove the snow from the sidewalks in front of such lands.

81. All bread sold within the Parks shall have indicated upon each loaf the weight thereof. This shall be done by means of a mould in the bottom of the pan in which the bread is baked. The Superintendent or other officer appointed for the purpose shall have authority to examine and weigh at such times as he may consider advisable any bread found in the store or delivery van of any baker or bread dealer within the Parks; and if such bread be found of less weight than that indicated upon the loaf the Superintendent or other officer may confiscate the same and dispose of it by sale or by donation to some charitable purpose; such confiscation, however, shall not relieve the baker of such bread from the liability imposed by these Regulations for an anfrac tion thereof.

82. No person shall be permitted to bathe near any of the regularly travelled roads, dwellings, or other places of public resort in the Public Parks without suitable bathing clothes.

83. All complaints by tourists and others as to service, etc., rendered in the Parks should be made to the Superintendent in writing before the complainant leaves the Park.

PENALTIES.

84. The Superintendent of any of the Parks, or, in his absence, any person occupying that position, or any game guardian, constable, or police officer, may, on view, without warrant or legal process, arrest and bring before a Justice of the Peace, or before the Superintendent, to be dealt with according to law, any person found violating any of the provisions of these Regulations, or having in his possession fish or game contrary to the provisions of such regulations.

85. Any person who violates any of the provisions of these Regulations may be prosecuted under that part of the Criminal Code relating to summary convictions, being part XV of the Revised Statutes of Canada, 1906, Chapter 146, before a Justice of the Peace; the Commissioner of Parks, or the Superintendent of Parks, who for the purposes hereof shall be *ex officio* a Justice of the Peace, with jurisdiction anywhere in the Parks, or before any officer of the North West Mounted Police, empowered by law to sit and act as a Justice of the Peace.

86. Any person who violates any of the provisions of any of these Regulations, shall, except as hereinafter specially provided, be liable on summary conviction to a penalty not exceeding fifty dollars and costs, and in default of payment thereof, to imprisonment for a period not exceeding three months.

87. Any person who violates any of the provisions of clause number forty-nine of these Regulations, which relates to the sale of intoxicating liquors within the Parks, shall be liable on summary conviction to a penalty not exceeding in each case the sum of fifty dollars and costs, and in default of payment thereof, to imprisonment for a term not exceeding three months, and a moiety of every penalty imposed and collected under the provisions of this clause of these Regulations shall belong to His Majesty, and the other moiety to the person laying the information.

88. Any person who violates any of the provisions of clause seventy-eight of these Regulations, which relates to gaming, shall be liable on summary conviction to a penalty not exceeding in each case the sum of fifty dollars and costs, and in default of payment thereof, to a term of imprisonment not exceeding three months; and a moiety of every penalty imposed and collected under the provisions of this Clause of

these Regulations shall be long to His Majesty and the other moiety to the person laying the information.

JURISDICTION.

89. In order the more effectually to repress the offences specified in Clauses numbers forty-nine and seventy-eight of these Regulations, every officer of the Parks, or officer of the North West Mounted Police Force or constable of the North West Mounted Police Force accompanied by or acting under the orders of a commissioned officer of the said Force is hereby authorized, by force if necessary, and without the necessity of any intervention or process of law, to enter any suspected place, to arrest therein on view any person or persons found committing any of the offences aforesaid, and to bring him or them before any of the officers who by these Regulations are empowered to sit and act as Justices of the Peace within the Parks, to be dealt with according to law; and also to seize any tables or other instruments, and money, securities for money, intoxicating liquor, and vessels and appliances used in connection therewith, in contravention of the said clauses; and upon the conviction of such person or persons or any of them of such offence, in addition to any penalty imposed in respect thereof, the said table or tables and other instruments shall be forfeited and sold, or in the discretion of the convicting Justice, destroyed, and the money so seized as aforesaid shall be forfeited and applied, together with the proceeds of sales, towards the revenue of the Parks in the manner hereinafter provided.

90. For the control and management of the Parks in any manner whatsoever not specially provided for by the Rocky Mountains Park Act, Revised Statutes of Canada, 1906, Chapter 60, or by any other Act of the Parliament of Canada applicable to the Parks or by the foregoing Regulations, any existing Statute of the Province in that behalf shall be in force.

GENERAL PROVISIONS.

91. The revenues derived from any source under any of the provisions of these Regulations shall be deposited forthwith to the credit of the Receiver General on account of the Dominion Parks except as otherwise specially provided.

92. A printed copy of these Regulations to be furnished by the Department of the Interior for that purpose, shall be posted and kept in a conspicuous place in every Government office and in every hotel, boarding house, bath-house and livery stable within the Parks.

93. Wherever in these Regulations the expression 'The Superintendent of the Park' or 'the Superintendent' is used it shall mean the officer holding that office at the present time under appointment by the Governor in Council, or any person who may be hereafter so appointed to the said office in connection with any of the Dominion Parks.

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RETURN

(100)

To an address of the House of Commons, dated the 29th November, 1909, calling for a copy of all memorials, reports, correspondence and documents in the possession of the Government, relating to the reduction of the representation in the House of Commons, of the several provinces of Nova Scotia, New Brunswick and Prince Edward Island, and of all correspondence with the Governments of these provinces with regard to the restoration to the said provinces of such representation as they respectively had at the time of their becoming provinces of this Dominion.

CHAS. MURPHY,
Secretary of State.

Return to an address of the House of Commons of 29th and 30th November, 1909, for copies of all memorials, reports, correspondence, etc., relating to the representation in the House of Commons of the several provinces of New Brunswick, Nova Scotia and Prince Edward Island.

P. C. No.	Subject.
451 O.C. 14 April, 1903	Approving Report of Minister of Justice of Canada, on Memorial Executive Council of New Brunswick, *re* representation.
615 O.C. 17 April, 1903	Reference to Supreme Court for hearing and consideration of question of readjustment of representation of New Brunswick and Nova Scotia.
1451 L	Resolution of Legislative Assembly of Prince Edward Island with reference to representation.
809 O.C. 16 May, 1903	Reference to Supreme Court for hearing and consideration of question of representation of Prince Edward Island.
994 1903	Opinion Supreme Court of Canada on question of representation in House of Commons of Prince Edward Island.
28 1905	Letter, Premier New Brunswick *re* costs incurred in "The Representation Case," and opinion Minister of Justice of Canada in regard thereto.
486M. O.C. 28 April, 1905	Address Legislative Assembly of New Brunswick regarding representation and reply thereto.
574M	Address Legislative Assembly of Prince Edward Island asking fulfilment Terms of Union, and address with reference to representation.

P.C. 451.

Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 14th April, 1903.

The Committee of the Privy Council have had under consideration a despatch dated 18th March, 1903, from the Lieutenant Governor of New Brunswick, transmitting a copy of a Minute of his Executive Council respecting the readjustment of the representation of the provinces in the House of Commons.

The Committee have also under consideration a Report hereto attached dated 6th April, 1903, from the Minister of Justice upon the subject.

The Committee concurring in the Report of the Minister of Justice advise that a copy of this Minute, if approved, be forwarded to the Lieutenant Governor of the province of New Brunswick.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

6th April, 1903.

To His Excellency the Governor General in Council:—

The undersigned has had under consideration the approved Minute of the Executive Council of New Brunswick, a copy of which was transmitted to the Secretary of State with His Honour the Lieutenant Governor's despatch of the 18th ultimo, and in which the contention is made that section 51 of the British North America Act is subject to an interpretation which would save to the province of New Brunswick its present representation in the House of Commons.

The section referred to provides for the readjustment after each census of the representation of the several provinces in that house. The general rule prescribed is that while Quebec is to have the fixed number of sixty-five members the representation of the other provinces is to be readjusted on the completion of each decennial census so that the number of members assigned to each shall bear the same proportion to its population as the number sixty-five bears to the population of Quebec.

Subsection 4 of the section provides that on any such readjustment the number of members for a province shall not be reduced unless the proportion which the number of the population of the province bore to the number of the aggregate population of Canada at the then last preceding readjustment of the number of members for the province is ascertained at the then latest census to be diminished by one-twentieth part or upwards.

Section 52 provides that the number of members of the House may be from time to time increased by the Parliament of Canada, provided the proportionate representation of the provinces prescribed by this Act is not thereby disturbed.

The contention on the part of New Brunswick is that in subsection 4 of section 51 the word 'Canada' means now, as it did when the Act was passed, not the Canada of to-day, but the four original provinces of Ontario, Quebec, Nova Scotia, and New Brunswick, and that the proportions referred to in the section are to be estimated with regard to the aggregate population of those provinces and not with regard to the population of Canada as it now exists.

If that were the correct interpretation, calculation shows that none of the four original provinces would sustain any loss of representation as the result of the census of 1901, for in the case of each of them the proportion which the population of the province bore to the number of the aggregate population of the four proivnces according to the census of 1891 is diminished by less than one-twentieth part according to the results of the recent census. It appears, however, that even if the suggested interpretation is correct the province of Prince Edward Island would not be saved from the loss of a member, the diminution in the case of that province being greater than one-twentieth of the proportion of 1891.

The undersigned is of opinion, however, that sub-section 4 is not open to the construction now sought to be placed upon it.

Section 146 of the British North America Act, 1867, provides that it shall be lawful for the Queen in Council on addresses from the Houses of Parliament of Canada and of the legislatures of the provinces or colonies concerned to admit Newfoundland and British Columbia into the Union, and on addresses from the Houses of Parliament of Canada, to admit Rupert's Land and the North Western Territory, or either of them, into the Union, on such terms and conditions in each case as in the addresses

expressed and as the Queen thinks fit to approve, subject to the provisions of the Act, and that the provisions of any Order in Council in that behalf shall have effect as if they had been enacted by the Parliament of the United Kingdom of Great Britain and Ireland.

This provision has been acted upon in the cases of British Columbia and Prince Edward Island, the terms of union with each province having by virtue of section 146 the force and effect of statutes of the United Kingdom. Rupert's Land and the North Western Territory have also been admitted into the Union under that section, but not as a province or provinces, and the province of Manitoba has been carved out of Rupert's Land by legislation of the Parliament of Canada, which also by virtue of the provisions of the British North America Act, 1867, has practically the force and effect of an imperial statute.

By the terms of Union with British Columbia (O.C. 16th May, 1871), it is provided amongst other things as follows:—

10. 'The provisions of the 'British North America Act, 1867, shall (except those parts thereof which are in terms made, or by reasonable intendment may be held to be specially applicable to and effect one and not the whole of the provinces now forming the Dominion, and except in so far as the same may be varied by this Minute), be applicable in the same way and to the like extent as they apply to the other provinces of the Dominion, and as if the colony of British Columbia had been one of the provinces originally united by the said Act.

8. 'British Columbia shall be entitled to be representated in the Senate by three members, and by six members in the House of Commons. The representation to be increased under the provisions of the British North America Act, 1867.'

The terms of Union with Prince Edward Island (O.C. 26th June, 1873; statutes of 1873, p. ix) contain a provision to precisely the same effect as clause 10 of the Terms of Union with British Columbia and the following provision as to representation:—

'That the population of Prince Edward Island having increased by 15,000 or upwards, since the year 1861, the Island shall be representated in the House of Commons of Canada by 6 members; the representation to be readjusted from time to time under the provisions of the British North America Act, 1867.'

And the Manitoba Act (33 V., C. 3), which, like the Terms of Union, has the force of an Imperial Act, also contains a provision (section 2) to all present intents and purposes the same in effect as clause 10 of the British Columbia terms of Union. It also contains provision for the present representation of Manitoba in the Senate and House of Commons, and for the readjustment of its representation in the latter house according to the provisions of the 51st section of the British North America Act, 1867.

The Terms of Union and the Manitoba Act are to be looked upon and construed as in effect Imperial Acts amending the British North America Act, 1867. It will be observed that in each of them it is provided that the provisions of the British North America Act, 1867, except those answering a certain description which section 51 does not answer, shall be applicable to the new province in the same way and to the same extent as they apply to the other provinces of the Dominion, and as if the new province had been one of the provinces orignally united by the said Act. Section 51 is also in each case specially declared to be applicable, subject to exceptions which for the present purpose are immaterial.

The words underlined seem to dispose of the suggested view as to the construction of the Act as untenable. Suppose one of the admitted colonies had been one of the provinces originally united, how must section 51 have then been read and construed. In the opening paragraph 'four provinces' would have been 'five provinces'; the word 'province' throughout the section would have applied to the supposed additional province as well as the others, and can it be doubted that the word 'Canada' in paragraph 4 would have included all five provinces. The section then is to apply in that

way to the new province, but it is also provided that it shall apply to the new province in the same way and to the same extent as it applies to the other provinces of the Dominion, and this involves the converse that it applies in the same manner to the other provinces as it does to the new one.

Upon perusing the Act it will be seen that upon the admission of each of the new provinces into the Union the expression 'Canada' and 'province' throughout the Act must necessarily be given an intepretation different from that which they bore in the original Act and must be taken to apply to and include the newly admitted provinces, and the undersigned does not think that there is any sufficient reason for a different interpretation of them as they are used in sections 51 and 52.

Such a provision as the proposed construction involves would also be incongruous and unnatural under the circumstances and can hardly be taken to have been intended. Where new partners are admitted into the Union with practically equal rights one would expect to find the relation of the population of each province to that of the whole Dominion to govern its representation in the popular chamber, and not its relation to the aggregate population of four only out of the seven provinces, or as time goes on a still larger number of provinces of which those newly admitted are likely in respect of population to become increasingly important members of the confederation.

For these and other reasons the undersigned is, as above stated, of opinion that the construction of the Act suggested by the New Brunswick government is inadmissable.

Humbly submitted,

C. FITZPATRICK,
Minister of Justice.

GOVERNMENT HOUSE,
FREDERICTON, N.B., 18th March, 1903.

The Honourable The Secretary of State, Ottawa.

Sir,—Herewith please find enclosed a copy of a Minute of Council in *re* question of the readjustment of the representatives of the provinces in the House of Commons.

Would you kindly have the same transmitted to His Excellency the Governor General.

J. B. SNOWBALL,
Lieutenant Governor.

The Committee of the Executive Council have had under consideration the results of the recent census of Canada, as bearing upon the question of the readjustment of the representation of the provinces in the House of Commons, and think it desirable that the attention of the Dominion Government should be called to the following provisions of the British North America Act.

The Committee observes that by section 51 it is provided that, on the completion of the census in the year one thousand eight hundred and seventy-one, and of each subsequent decennial census, the representation of the four provinces shall be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following rules:—

1. Quebec shall have the fixed number of sixty-five members.

2. There shall be assigned to each of the other provinces such a number of members as will bear the same proportion to the number of its population (ascertained at such census) as the number sixty-five bears to the number of the population of Quebec, (so ascertained).

4. On any readjustment, the number of members for a province shall be reduced, unless the proportion which the number of the population of a province bore to the number of the aggregate population of Canada at the then last preceding readjustment of the number of members for the province, is ascertained at the then latest census to be diminished by one-twentieth part, or upwards.

The Committee of Council are of the opinion that in construing paragraph (4) of this section the words 'aggregate population of Canada' mean the population of the four provinces of Canada, referred to in the earlier part of the section, and which by the Act constituted the Confederation.

Section 146 makes provision for the admission of Newfoundland, Prince Edward Island, British Columbia and Rupert's Land, and the North Western Territory, or either of them, into the Union, on such terms and conditions, in each case, as may be agreed on, and as the Queen thinks fit to approve, subject to the provisions of the Act.

Section 147 provides for representation of the new provinces in the Senate, but no provision is made for their representation in the House of Commons.

It will be observed that in connection with the admission of other provinces it was recognized that special provision could be made for their representation. Thus Prince Edward Island was admitted with a larger representation than it would have been entitled to if based on the proportion of its population to that of Quebec. The same remark applies to Manitoba, which was admitted with a representation of four members.

The proportion which the number of the population of New Brunswick bore to the number of the aggregate population of the four Provinces of Canada at last preceding readjustment of the number of its members, has not according to the census of 1901, been diminished by one-twentieth part. Indeed, its relative proportion has not diminished at all, but has increased.

If the view of the Committee as to the proper interpretation of paragraph (4) of section 51 is correct, it is clear that there should be no reduction in the representation from New Brunswick.

The Committee of Council therefore recommend that His Honour, the Lieutenant Governor, be moved to transmit a copy of this Minute to His Excellency the Governor General, for the consideration of His Excellency's Advisers.

Province of New Brunswick:

I, Joseph Howe Dickson, Clerk of the Executive Council of said province, do hereby certify that the aforegoing is a true copy of a Minute of Council passed by the said Executive on the 12th day of March, instant. Dated March 18th 1903.

JOS. HOWE DICKSON,

Clerk of the Executive Council of New Brunswick.

P.C. 615.

Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 17th April, 1903.

On a Report dated 15th April, 1903, from the Minister of Justice, submitting that in connection with the proposed readjustment of the representation in the House of Commons of the provinces of the Dominion consequent upon the last decennial census, the province of New Brunswick supported by the province of Nova Scotia contends for a construction of section 51 of the British North America Act, 1867, different from that which has been heretofore applied and which is adopted by Your Excellency's Advisers. These provinces have, therefore, asked that a reference be made to the Supreme Court of Canada for a determination of the question in difference.

The Minister therefore recommends that the following question suggested by the Government of New Brunswick, and approved as the Minister of Justice is informed by the Government of Nova Scotia, be referred to the Supreme Court for hearing and consideration, pursuant to the authority of the Supreme and Exchequer Court Acts, as amended by the Act 54-55 Victoria, Chapter 25, intituled 'An Act to amend Chapter 135 of the Revised Statutes, intituled 'An Act respecting the Supreme and Exchequer Courts,' viz:—

In determining the number of representatives in the House of Commons to which Nova Scotia and New Brunswick are respectively entitled after each decennial census, should the words 'aggregate population of Canada' in sub-section 4 of section 51 of the British North America Act, 1867, be construed as meaning the population of the four original provinces of Canada, or as meaning the whole population of Canada including that of provinces which have been admitted to the Confederation subsequent to the passage of the British North America Act?

The Committee submit the same for approval.

RODOLPHE BOUDREAU,

Clerk of the Privy Council.

P.C. 1451L.

CHARLOTTETOWN, PRINCE EDWARD ISLAND, 20th April, 1903.

The Honourable The Secretary of State, Ottawa.

Sir,—I have the honour to transmit to you herewith for the consideration of His Excellency the Governor General in Council a Resolution passed by the Legislative Assembly of the Province of Prince Edward Island with reference to the representation of this province in the Federal Parliament, with the desire that the matter mentioned in said Resolution may be referred to the Supreme Court of Canada for hearing and consideration, and that the necessary steps be taken by His Excellency's Advisers to have the said Resolution carried into effect.

P. A. McINTYRE,

Lieutenant Governor.

RESOLUTION.

Passed by the Legislative Assembly of Prince Edward Island relative to Increased Representation in the Federal Parliament.

Whereas at the last session of this House a Resolution was passed in the following words:—

Whereas under the provisions of 'The British North America Act,' 1867, section 146 an Imperial Order in Council was passed by which this province was admitted into the Union of the Dominion of Canada upon the terms and conditions expressed in addresses from the Houses of the Legislature of the then colony of Prince Edward Island and of the Houses of Parliament of Canada attached as a schedule to said Order in Council.

And whereas each of the said Addresses contains (among other sections) the following:—

'That the population of Prince Edward Island having been increased by fifteen thousand or upwards since the year 1861, the Island shall be represented in the House

of Commons of Canad by six members; the representation to be readjusted from time to time under the provisions of 'The British North America Act, 1867.'

And whereas in order to arrive at the real intention of the several Houses when said section was adopted and to give to the words of said section their intending meaning, it is necessary to read such section in the light of the Conferences which led to its adoption, and the correspondence between the delegates assembled at such Conference and their respective Governments.

And whereas in 1864, at the Conference held at Charlottetown in this province it was contended that according to the method of ascertaining the number of representation any province under the provisions, afterwards incorporated in 'The British North America Act, 1867,' section 61, this province was entitled to only five members and the delegates from this province to such Conference insisted that if the province were to enter the Union a representation of six members at least would be a condition precedent as appears from the schedule hereto annexed, marked 'A' which contains abstracts from the Addresses of the delegates of this province at such Conference.

And whereas at the Conference in 1873 at which the terms of Union were agreed upon the same question of our representation was raised and delegates from other provinces again insisted that our population only entitled us to five members in the Parliament of Canada, and this question seems to have been one of the chief contentions with reference to the entry of this province into the Union.

And whereas at the said Conference in 1873, our delegates refused to agree to the terms of Union unless and until the question of representation allowing this province six members was agreed to.

And whereas the said Conference after long discussion conceded to this province a representation of six members as appears by the telegrams hereto annexed marked 'B' exchanged on that occasion between Hon. Mr. Haythorne a delegate from this province and the then Lieutenant Governor.

And whereas it would appear from such correspondence and telegrams and from the reports of such Conferences read with the above section of our terms of Union that inasmuch as in 1861, our population was eighty thousand eight hundred and fifty-seven and that it 'having been increased by fifteen thousand or upwards' making our population ninety-five thousand eight hundred and fifty-seven, such population of ninety-five thousand eight hundred and fifty-seven was adopted as a standard which gives us six members, and that any readjustment as mentioned in said section must be construed to mean that so long as this province retains at least ninety-five thousand eight hundred and fifty-seven of a population we should have at least six members and should not be reduced until the population decreases to below that number.

And whereas it clearly appears to the House from the correspondence and telegrams above referred to and from the addresses of the delegates to the different Conferences that a compact was entered into with this province when we entered the Union that unless and until our population decreased to below ninety-five thousand eight hundred and fifty-seven no decreases in our representation should be made.

And whereas at the readjustment in representation of the whole Dominion after the decennial census in 1891, such compact was disregarded and the representation of this province was reduced from six to five, such reduction being based on the unit of representation mentioned in section 51 of said British North America Act, 1867, which we believe does not in its entirety refer to Prince Edward Island.

And whereas by the decennial census had and taken in the year 1901, our relative population is further decreased, and if the rule adopted in 1891 is again followed our representation in the Commons of Canada will be further lessened.

And whereas considering the immense area and great possibilities and probable growth of Canada and particularly of a large unsettled part of the Province of Quebec, which controls the unit by the application of the principal adopted in 1891 the representation of this Province may within a few decades be decreased even to one member,

a state of affairs never intended and never anticipated by those who framed our terms of Union.

And whereas it appears from the addresses of delegates at the several Conferences above referred to, that the delegates of this province made it an expressed condition precedent to our entry into the Union, that, notwithstanding the fact that according to the unit formed under section 51 of 'The British North America Act, 1867,' our population would only entitle us to a representation of five members we should have at least six members; and the reasons (expressed in the extacts of the Addresses in schedule 'A' hereto) which led out delegates to insist at that time as a minimum of six members apply still with increased force.

Therefore resolved that in the opinion of this House this province should have restored their representation of six members according to the compact entered into at the time this province entered the Union.

Further resolved that in case the opinion of this House as to the construction of the above mentioned section of our terms of Union be not concurred in, representations be made to the Home government through the proper channels asking that the said terms of Union be so amended as to carry into effect the compact entered into with this province when it entered the Union.

SCHEDULE 'A.'

Extracts from Speeches at Conference of 1864.

Mr. HAVILAND.—'Prince Edward Island would rather be out of Confederation than consent to this motion. We would have no status, only five members out of one hundred and ninety-four, would give the Island no position.'

Mr. PALMER.—'Representation by population is not applicable when a certain number of provinces are throwing up their self-government and individuality. When a colony surrenders that right she should have something commensurate in the Confederation, why give up so great certainties when we have only a feeble voice. I never understood that any proposition at Charlottetown was to be binding as to representation by population.'

Mr. WHELAN.—'I do not think, however, I could say that I was satisfied with the representation of five members in the Federal House of Commons, we are in an isolate position, our resources are not large, and our people would not be content to give up their present benefits for a representation of five members. It may be said that Confederation will go on without Prince Edward Island, and that we shall eventually be forced in. Better, however, that than we should willingly go into the Confederation with that representation.'

Colonel GREY.—'I am instructed by my co-delegates to say that the provision of five members is unsatisfactory. Prince Edward Island is divided longitudinally into three counties, we cannot divide three counties into five members.'

Mr. COLES.—'Mr. Galt has proposed six members for Prince Edward Island, I approve that rather than Mr. Brown's motion, because it allows us to give our counties two members each.'

Mr. POPE.—'I agree in all that has been said by Colonel Grey and Mr. Coles. But the circumstances of Prince Edward Island are such that I hope the Conference will agree to give us such a number as we can divide amongst our constituencies. Nature as well as the original settlement of the Island has made three counties and it would give us too much difficulty if we had to adjust five members to three counties. I cannot ask it as a matter of right but as one of expediency, as one without which it impossible for us to carry the measure in Prince Edward Island; I therefore ask for six members.'

SCHEDULE 'B.'

Telegram from Robert P. Haythorne to Lieutenant Governor Robinson, dated February 26th, 1873.

'Held two Conferences. Increase of annual allowance. Probable yield six representatives.'

Telegram from Robera P. Haythorne to Lieutenant Governor Robinson, March 6th, 1873.

'Highly probable get six representatives, try and send reply Council as soon as possible.'

Telegram from Lieutenant Governor Robinson to Robert Haythorne.

'Council concur in advising dissolution. We hope six representatives will be conceded.'

Telegram to Hon. Edward Palmer from Robert P. Haythorne, March, 8th, 1873.

'Except modifications stated and interest difference old debt better terms allowed. Six members conceded.'

And whereas a Committee of the Executive Council of this province was by our government delegated to wait upon the government of the Dominion of Canada to press upon them the views of this province as to the question of provincial representation in the Federal Parliament as set forth in said Resolution.

And whereas our government has in accordance with the representations of said delegation obtained the consent of the said government of the Dominion of Canada to have the said matter referred to the Supreme Court of Canada under the provisions An Act of the Parliament of Canada passed in the 38th year of Her late Majesty's reign, Chapter 11, intituled 'The Supreme and Exchequer Court Act.'

Therefore resolved that this House is of opinion that the said matter should be referred to the said Supreme Court.

Further resolved that an humble request be made through the proper channels that His Excellency the Governor General in Council be pleased to refer the said matter to the said Supreme Court of Canada for hearing or consideration under the provisions of the said Act.

The above Resolution was passed by the Legislative Assembly of the province of Prince Edward Island on the 14th day of April, A.D., 1903. Certified.

SAMUEL E. REID,
Speaker Legislative Assembly.

R. H. MONTGOMERY,
Clerk Legislative Assembly.

LEGISLATIVE ASSEMBLY CHAMBER,
Prince Edward Island, 20th April, 1903.

P.C. 809.

Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 16th May, 1903.

On a Memorandum dated 12th May, 1903, from the Minister of Justice, submitting that in connection with the proposed readjustment of the representation in the House of Commons of the provinces of the Dominion consequent upon the last decennial census, the province of Prince Edward Island contends that its representation in the House of Commons is not liable to be reduced below six although the application of the provisions of section 51 of the British North America Act, 1867, would, in view of the census returns, result in a reduction.

The Minister states that he does not agree with the view advocated by the government of Prince Edward Island and the province has asked that a reference be made to the Supreme Court of Canada for a determination of the question in difference.

The Minister therefore recommends that the following question, suggested by the government of Prince Edward Island be referred to the Supreme Court of Canada for hearing and consideration, pursuant to the authority of the Supreme and Exchequer Courts Act, as amended by the Act 54-55 Victoria, Chapter 25, intituled 'An Act to amend Chapter 135 of the Revised Statutes, intituled 'An Act respecting the Supreme and Exchequer Courts,' viz:—

'Although the population of Prince Edward Island as ascertained at the census of 1901, if divided by the unit of representation ascertained by dividing the number of 65 into the population of Quebec is not sufficient to give six members in the House of Commons of Canada to that province, is the representation of Prince Edward Island in the House of Commons of Canada, liable under the British North America Act, 1867, and amendments thereto and the terms of union of 1873 under which that province entered Confederation, to be reduced below six, the number granted to that province by the said terms of Union of 1873?'

The Committee submit the same for approval.

RODOLPHE BOUDREAU,

Clerk of the Privy Council.

P.C. 994.

IN THE SUPREME COURT OF CANADA.

Monday the eighth day of June, A.D., 1903.

PRESENT:—

The Honourable Sir Henri Elzear Taschereau, Knight, Chief Justice.
" " Robert Sedgewick,
" " Desire Girouard,
" " Sir Louis Henry Davies,
" " Wallace Nesbitt.

In the matter of a certain question referred by His Excellency the Governor General, in pursuance of an Order in Council approved by His Excellency on the sixteenth day of May, A.D., 1903: Subject: Representation in the House of Commons of Prince Edward Island.

His Excellency the Governor General in Council, by an Order in Council bearing date the sixteenth day of May, in the year of our Lord one thousand nine hundred and three, passed pursuant to the Revised Statutes of Canada, Chapter 135, as amended by 54-55 Victoria, Chapter 25, having referred to the Supreme Court of Canada for hearing and consideration on the following question, namely:—

'Although the population of Prince Edward Island, as ascertained at the census of 1901, if divided by the unit of representation ascertained by dividing the number of 65 into the population of Quebec is not sufficient to give six members in the House of Commons of Canada to that province, is the representation of Prince Edward Island in the House of Commons of Canada, liable under the British North America Act, 1867, and amendments thereto and the terms of Union of 1873 under which that province entered Confederation, to be reduced below six, the number granted to that province by the said terms of Union of 1873.'

And the said question having come before this Court for hearing on the second day of June in the year of our Lord one thousand nine hundred and three, in the presence of the Honourable Arthur Peters, Attorney General for Prince Edward Island, A. B. Aylesworth, K.C., and Mr. Williams, who appeared on behalf of the province of prince Edward Island, and E. L. Newcombe, K.C., Deputy Attorney General for Canada, who appeared on behalf of the Dominion of Canada, whereupon and upon hearing what was alleged by counsel aforesaid this Court directed that the matter of the said Reference should stand over for consideration, and the same having come on before this Court this day, this Court did answer the said question in the affirmative; and the reason therefor will appear from the opinion delivered by the Chief Justice, concurred in by Mr. Justice Sedgewick, Mr. Justice Girouard, Mr. Justice Davies and Mr. Justice Nesbitt, hereunto annexed.

All of which is respectfully certified under the seal of the Supreme Court of Canada.

E. R. CAMERON,
Registrar.

The Chief Justice:—Under the provisions of the Supreme Court Act as amended by the Act 54-55 Victoria, Chapter 25, the following question has been referred to the Court by the Governor General in Council:

'Although the population of Prince Edward Island, as ascertained at the census of 1901, if divided by the unit representation ascertained by dividing the number of 65 into the population of Quebec is not sufficient to give six members in the House of Commons of Canada to that province, is the representation of Prince Edward Island in the House of Commons of Canada, liable under the British North America Act, 1867, and amendments thereto and the terms of Union of 1873 under which that province entered Confederation, to be reduced below six, the number granted to that province by the said terms of Union of 1873?'

The province of Prince Edward Island contends that its representation in the House of Commons of Canada is not liable to ever be reduced below six members. That contention is based upon the 12th resolution under which the province, in 1873, was admitted by an Imperial Order in Council into the Union under the provisions of the one hundred and forty-sixth section of the British North America Act. That resolution reads as follows:—

'That the population of Prince Edward Island having been increased by fifteen thousand or upwards since the year 1861, the Island shall be represented in the House of Commons by six members; the representation to be readjusted from time to time under the provisions of the British North America Act.'

'In my opinion, the province's contention is unfounded. It may well be that the framers of the British North America Act have not forseen or provided for every possible eventuality in the respective positions of the different provinces of the Dominion, as to population or other matters; it may be that some of the provinces would have refused to join the Union had they forseen all the results that their adhesion to it is now ascertained to carry. But with such considerations we are not here concerned. On the Statute and on the Order in Council of 1873 (which has to be construed as a statute), we must base our answer to the question submitted. The negotiations that preceded both or each of them are merged in the statute and the Order in Council. Now, it has to be taken as a settled proposition, as far as this Court is concerned, by the opinion we lately delivered on the reference concerning New Brunswick and Nova Scotia (ante-page) that the representation in the Federal House of Commons is, as the fundamental basis in that respect of the Constitution, based upon population. I need not here do more than refer to the reasoning upon which we reached that conclusion. The province of Prince Edward Island's contention, that it occupies an exceptional position in this regard within the Union, and that it is entitled to a larger

representation comparatively in the House of Commons than the other provinces thereof, cannot prevail. It was provisionally that it was given six members, till its representation was re-adjusted with that of the other provinces, as provided for by section 51 of the British North America Act. The resolution in question must be read as if the words 'in the first instance' were inserted therein after the words 'represented.' Otherwise, the words that follow, 'the representation to be re-adjusted from time to time under the provisions of the British North America Act,' would have no meaning whatever. The province would read them out of the resolution. And that cannot be done. They have to be read as if incorporated in a statute, and must be construed as meaning that the representation of the province shall be re-adjusted after every decennial census, as provided for by section 51 of the British North America Act, its representation, in the meantime, to be composed of six members. That section 51 must now be read as if the words 'the four provinces' in the first paragraph thereof were replaced by the words 'all the provinces.' There is nothing that can have any bearing whatever on the solution of the question submitted in the assertion on the part of the province that it is only upon the understanding that its representation in the House of Commons should never be reduced below six members that it consented to come into the Union. That cannot prevail as an argument. The rest of the Dominion are just as entitled to assert that they would not have admitted the province in the Union had it insisted, as it now would do, upon more favourable terms than the other provinces in the matter of representation in the House of Commons.

I would answer the question in the affirmative; that is to say, I am of opinion that as by the Federal census of 1901, the population of Prince Edward Island divided by the unit of representation ascertained by dividing the number of 65 into the population of Quebec is not sufficient to give six members in the House of Commons to that province, the representation of that province must be re-adjusted and reduced proportionately to population as provided for by section 51 of the British North America Act.

I concur.

H. E. TASCHEREAU, C.J.,
ROBT. SEDGEWICK, J.,
D. GIROUARD, J.,
L. H. DAVIES, J.,
WALLACE NESBITT, J.

P.C. 28, 1905.

EXECUTIVE COUNCIL NEW BRUNSWICK.

FREDERICTON, N.B., November 5th, 1904.

The Right Honourable Sir Wilfrid Laurier, K.C.M.G., Premier, etc., Ottawa.

SIR,—I am desired by the Executive Council to request that your government will favourably consider the question of paying the costs incurred by the province of New Brunswick in connection with the argument before the Supreme Court of Canada and the Judicial Committee of the Privy Council of the Representation Case, so called.

As you are aware, the question turned upon the true interpretation of the word 'Canada' in sub-section (4) of section 51 of the British North America Act; which section provides that the representation of the four provinces shall be re-adjusted from time to time in manner therein specified; sub-section (4) providing that there shall be no reduction of representation if the proportion of the population relatively to the aggregate population of Canada has not, since the previous re-adjustment, been diminished by one-twentieth or upwards.

The contention on the part of the province was, that as the British North America Act was making no provision for representation of new provinces or of the territories, the word 'Canada' in sub-section (4) should, as respects the representation of the four original provinces, be held to mean such four provinces. It was also our view that if we were wrong in this contention, it would, at all events, be a proper interpretation of the section to exclude the Territories, whose representation is in no way governed by section 51, and also British Columbia, in respect to which the Imperial Order in Council admitting the province to the Union provided that its representation should be subject to increase under the terms of the British North America Act, but contained no provision for a reduction of representation. If we proved to be right in either of these contentions, New Brunswick would be entitled to retain its previous representation. It seemed to the Executive Council of this province that this was a proper question to have judicially determined, and I am sure that all would agree that it was eminently proper on the part of your government to submit the case for the consideration of the Supreme Court.

Mr. Justice Mills, who delivered the judgment of the majority of the Supreme Court of Canada, seems to rest his judgment upon the ground that, by the legislation of the Imperial Parliament with reference to Manitoba, and also by the Imperial Orders in Council in respect to the provinces admitted subsequent to Confederation, the British North America Act was made to apply as if they had been in the Union from the beginning. You will readily agree that our government was scarcely prepared to expect that it would be held that the rights of the four original provinces with respect to representation were affected by legislation of the Imperial Parliament and Imperial Orders in Council, passed subsequent to the British North America Act, in respect to which the provinces were in no way consulted and regarding which they had no voice.

Mr. Justice Davies, in his judgment, states that in his opinion there is very much in the argument put forward on behalf of the province. Of course, I do not know upon what ground the Judicial Committee of the Privy Council bases its decision, but the Attorney General informs me that the opinion was expressed by one or more of their Lordships that it was quite competent to make any provision which might be agreed upon for representation of new provinces and to expressly provide that they should not be subject to re-adjustment under the provisions of section 51. If this should be the settled opinion of the Judicial Committee, it will be seen that they take a different view of the ground upon which the case should be decided from that which was taken by a majority of the judges in the Supreme Court of Canada.

I mention these matters in order to show you that the case was by no means free from doubt, and that it was most desirable that it should be submitted to the courts.

Having established, as I have, the fact that it was entirely proper that the province should raise the question, the next point to consider is as to whether the province has a fair and equitable claim upon the Dominion for the payment of the costs.

In determining as to this, it must be borne in mind that the question was as to the constitutionality of a statute of the Federal Parliament, in respect to which many professional men, both in parliament and outside, entertained considerable doubt. Expression was given to this doubt in parliament.

Then, the Supreme Court of Canada left it uncertain whether or not the population of the Territories should be included in interpreting sub-section (4) of section 51. This was admitted by Counsel for Canada in their printed case prepared for the use of the Judicial Committee.

While this particular question would not affect the representation at present, it might in the future, and it was in the interest of the Dominion that it should be settled.

In view of the above, it seems to the Executive Council that the Dominion should pay the costs incurred in having these important questions determined.

L. J. TWEEDIE.

Enclosure. OTTAWA, 11th January, 1905.

The Right Honourable Sir Wilfrid Laurier, G.C.M.G., K.C., &c., Prime Minister, Ottawa.

My dear Sir Wilfrid,—Referring to Mr. Tweedie's letter of 5th November last, which you refer to me (herewith returned), I am unable to see any reason why this government should pay the costs of the Government of New Brunswick upon their unsuccessful contention with respect to the construction of section 51 of the British North America Act. This is not the first case by any means in which questions have arisen between the Dominion and the provinces with regard to the interpretation of the Act of Constitution. There have been of course many such case, all more or less important, and most of them of much greater difficulty than the one in question. Some of these cases have been decided for the Dominion and some for the provinces. In no case, so far as I am aware, has the court directed costs to be paid by any government, and in consequence each government has borne its own costs. There are certainly no reasons in the present case for paying costs to New Brunswick which might not be urged with equal force in every one of the constitutional cases to which I refer by the provinces in whose favour they have been decided, or by the Dominion against the provinces where the decisions have been favourable to the Dominion.

It will be remembered that the Dominion did not seek a judicial interpretation of the statute considering that the interpretation which has been consistently acted upon since Confederation was indisputable and the reference was made only at the urgent request of the provinces. How much there was to justify this is to some extent indicated by the fact that the Judicial Committee after hearing provincial counsel did not consider it necessary to call upon counsel for the Dominion in support of the view upon which this government has acted.

I am clearly of opinion, therefore, that the matter should rest as it has been decided by the courts, each government paying its own costs. It would rather seem in fact that if any claim for costs is to be made it should be made by the Dominion against the provinces, inasmuch as the Dominion has been successful, and the settling of the questions which are said to have been in doubt is perhaps quite as important to the provinces as for the Dominion.

C. FITZPATRICK.

P. C. 486 M.

Certified copy of a Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 28 April, 1905.

The Committee of the Privy Council have had under consideration a communication dated 22nd March, 1905, from the Lieutenant Governor of New Brunswick, enclosing copy of an address of the Legislative Assembly of that Province regarding the representation of New Brunswick in the House of Commons.

The Minister of Justice to whom the matter was referred, observes that the legislature of New Brunswick by this address in effect urges or suggests amendment of the British North America Act in matters affecting the constitution of all the provinces, and the Minister of Justice apprehends that His Excellency's government would not be justified in taking a step in a matter of such grave importance upon the representations of a single province.

The Minister is of opinion that it is incompetent to the Parliament of Canada to make any provisions in the Acts creating new provinces to affect the right of representation of the existing provinces.

The Committee of the Privy Council advise that a copy of this Minute, if approved, be forwarded to the Lieutenant Governor of New Brunswick.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

GOVERNMENT HOUSE.

FREDERICTON, N.B., 22nd March, 1905.

The Honourable The Secretary of State, Ottawa.

SIR,—I have the honour to enclose Address of the Legislative Assembly of the province of New Brunswick regarding the representation of the province in the House of Commons, and pray that it may be laid before His Excellency the Governor General in Council as asked.

J. B. SNOWBALL,
Lieutenant Governor.

ADDRESS.

To His Honour, the Honourable Jabez Bunting Snowball, D.C.L., LL.D., Lieutenant Governor of the Province of New Brunswick.

The Humble Address of His Majesty's faithful Commons of the House of New Brunswick:

MAY IT PLEASE YOUR HONOUR:

On the twentieth day of March instant, a Resolution was unanimously passed by the Legislative Assembly of this province in General Assembly convened, as followeth:

Whereas the Judicial Committee of the Privy Council, in its recent decision on the Appeal in the Representation Case, left undecided the question whether in computing the population of Canada, under sub-section (4) of section 51 of The British North America Act, the population of the Territories should be included;

And whereas, in the Imperial Order in Council, providing for the admission of British Columbia as a Province of Canada, and by the statute which created the province of Manitoba, it was provided that the British North America Act, 1867, should apply to them as if they had formed part of the Confederacy as originally constituted, whereby the contention of the government of this province, that, in construing sub-section (4) of section 51 of said Act, the words 'population of Canada' mean the population of the four original provinces, was greatly and unjustly prejudiced;

And whereas the northern boundary of the province of Quebec at Confederation was shown on the authorized maps and was understood and recognized to be the height of land between the waters flowing into the River St. Lawrence and those flowing into Hudson Bay;

And whereas the Parliament of Canada did, by the Act 61 Victoria, Chapter 3, enlarge the limits of the said province of Quebec, by the addition to it of a large area to the northward, (the area at that time being 193,355 square miles), thereby increasing the territory to 351,873 square miles, an increase of 158,518 square miles;

And whereas such Act was passed under the authority of the Imperial Statute, being the British North America Act, 1871, which declares that the Parliament of Canada may, from time to time, with the consent of the Legislature of any province, increase, diminish or otherwise alter the limits of such province, upon such terms and conditions as may be agreed to by the said legislature, and may, with the like consent, make provision respecting the effect and operation of any such increase of diminution or alteration of territory in relation to any province affected thereby;

Therefore it is resolved, 1st. That in the opinion of this House, the earnest attention of the government of Canada should be drawn to the effect of said Order in Council and statute respectively, relating to the admission to the Union of British Columbia and Manitoba, and it should be requested to take such action as may be necessary in order to restore the four original provinces to the position in which they

would have been but for Orders in Council and legislation passed subsequently to the British North America Act, 1867, in respect to which such provinces were not consulted, and to which they were not parties;

2nd. That in the Act for the creation of the new provinces of Alberta and Saskatchewan, it should not be provided that the British North America Act shall apply to them as if they were in the Union originally, and the rights of the original provinces as to representation should not be affected by the creation of such new provinces.

3rd. That, in justice to the other provinces, particularly New Brunswick, Nova Scotia and Prince Edward Island, which have no opportunity for enlargement of their areas, it should have been provided, and should now be provided, that for the purposes of representation, the boundaries of the province of Quebec, the population of which is the basis of representation, should be deemed to be as they were at the time of Confederation, or that some just and equitable provision should be made to save the other original provinces, and also Prince Edward Island, from loss of representation.'

That, on motion of the Honourable Mr. Tweedie, Premier, it was Resolved that an humble Address be presented to Your Honour, praying that Your Honour would be pleased to cause to be forwarded to the Secretary of State for the Dominion of Canada, a copy of the Resolution passed by the Legislative Assembly of this province on the 20th March instant, relating to the representation of the provinces, with a request that the same might be laid before His Excellency the Governor General.

We therefore humbly pray that Your Honour will be pleased to forward to the Secretary of State a copy of the said Resolution, with a request that a copy of the same may be laid before His Excellency, in compliance with the Resolution passed to that effect.

And as in duty bound will ever pray.

CLIFFORD W. ROBINSON,
Speaker.

P.C. 574 M.

GOVERNMENT HOUSE,
PRINCE EDWARD ISLAND,
CHARLOTTETOWN, 10th May, 1905.

The Honourable The Secreary of State, Ottawa.

SIR,—I am in receipt of a communication from the Clerk of the Legislative Assembly bearing date the ninth instant, enclosing a Message from the Legislature praying His Excellency the Governor General in Council that immediate steps be taken to fufil the terms of Union with respect to continuous steam communication; also a Message to His Excellency with respect to representation in the Commons, for transmission with the hope that these matters will soon receive a satisfactory solution, and in accordance therewith I enclose these Messages.

D. A. MACKINNON,
Lieutenant Governor.

ADDRESS.

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick in the County of Northumberland in the Peerage of the United Kingdom, and a Baronet; Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor General in Council.

We, His Majesty's dutiful and loyal subjects the Legislative Assembly of Prince Edward Island in General Assembly convened approach Your Excellency and represent:

1. That upon the first day of July, 1873, Prince Edward Island entered the Confederation of the Dominion of Canada upon certain terms and conditions set forth in an Order of Her Majesty the Queen in Council, dated 26th June, 1873.

2. That in the said terms and conditions of Union it was expressly stipulated that the Dominion government should assume and defray all the charges for the establishment and maintenance of efficient steam service for the conveyance of mails and passengers between this province and the mainland of the Dominion, winter and summer, so as to place this province in continuous communication with the Intercolonial railway and the railway systems of the Dominion.

3. That previous to and at the time of Confederation this province was in an exceedingly prosperous condition, its customs and excise taxes were low, and its revenues sufficient for the maintenance of its public service, the great obstacle to its further advancement was its isolated condition. In these circumstances the proposition of the Dominion to place the province in continuous communication with the railway system of the Dominion was the strongest inducement to enter Confederation.

4. This stipulation in the contract has never been fulfilled. In the year 1884 a Joint Address of the House of Assembly and the Legislative Council of this province was presented to the Governor General of Canada in Council setting forth the grievances of which this province then complained by reason of the non-fulfilment of the terms of Union. The claim referred to in the said Joint Address was continuously pressed upon the Dominion government up to the year 1901, when it was adjusted so far as the financial loss was concerned by the Dominion government agreeing to pay annually to this province the sum of $30,000 in settlement of our demands up to that date; but no consideration was given in such settlement to our loss of population which was not disclosed until the completion of the census of 1901.

5. Since 1901 no further improvement has been made in the service; and during these years communication by steamer has been frequently interrupted, notably in 1903 when there was no communication for sixty-four consecutive days; and in the present year of 1905 when there was no communication for fifty-nine consecutive days. The service has been inefficient and not continuous and many and frequent delays have occurred in the transportation of both mails and passengers as shown in the schedule hereto annexed, marked 'A.'

6. That during the periods when steamboat service was interrupted the passengers to and from this province were subjected to great hardship and danger in crossing at 'the Capes' in open boats in the manner practised more than half a century ago; whilst the transport of mails was less efficient than in the early history of this province, inasmuch as the whole of the mails were then carried by the ice-boats at each crossing whilst now and for several years past a large and important part of the mails were not transported but remained to await the resumption of steam communication as is shown in schedule 'B.'

7. That in consequence of the irregular and inefficient winter service incalculable losses have been sustained not only by the people of this province but by all the business houses of Canada having business to transact with Prince Edward Island. Goods in transit of a perishable nature are rendered valueless, other goods by reason of delay are injured in quality or arrive too late to find their market; and the course of business is so seriously disturbed as to cause in too many cases serious financial loss.

8. That the present means of communication are so inefficient as to render it almost impossible to carry on any manufacturing industries that require to import any of their raw material or export their products; and in the past this has had the effect of preventing many such industries being established and has injured and in some instances closed those already existing; and the loss occasioned thereby has been very great. In short the business and social life of the whole country has been practically paralyzed. The strong feeling here aroused by reason of the grievences complained

of was recently expressed in the Memorial to your government by a delegation representing the Boards of Trade, and the agricultural and commercial interests of this province.

9. It is submitted that the failure to carry out the contract on the part of the Dominion government in respect to continuous communication is responsible in a large measure for the reduction of our population in consequence of which our representation in the Federal Parliament has been reduced thus practically imposing a penalty on this province for what we claim to be the default of the Dominion government, and by the same act lessening our power to work out a remedy.

10. That the establishment and maintenance of efficient and continuous steam communication would result in immense benefits not only to Prince Edward Island but to the other provinces of the Dominion.

11. That continuous communication with the outside world once provided and known to be efficient new industries would soon be established and those now existing would be enlarged thereby affording profitable employment to our people and consequently keeping within the province many who are now obliged to find homes abroad and also tend to direct the tide of immigration to this province.

12. Prince Edward Island being a very large importer of commodities, the most of which are procured from other parts of Canada, we believe it to be the duty of your government, apart from any compact or agreement, in the interests of trade and commerce, to provide such satisfactory transportation facilities as would accommodate the increasing trade which the natural resources of the province and the industry of our people are capable of developing under well established and satisfactory conditions.

13. It is not the province of this legislature to dictate the means by which your government shall carry out the terms of Union in respect to continuous communication ' but we desire to press upon you that by the construction of a tunnel under the Straits of Northumberland between the Island and the mainland, the terms and agreement of Union between the Federal government and this province may be carried out and this province may receive the same consideration with regard to intercommunication as the other provinces of the Dominion.

14. And we would further press upon your government that to meet the immediate needs of our people an ice-breaking steamer of much greater power than the present winter boats should be provided with all possible expedition.

15. Wherefor the Legislative Assembly prays that Your Excellency in Council will take the foregoing facts into your most serious consideration and adopt vigorous and immediate measures to remedy the grievances complained of.

SCHEDULE 'A.'

Record showing number of days on which 'no trip' was made by Steamers '*Minto*' and '*Stanley*' and days on which half trip was mane by one of them only.

1902.	Days.	——
December 11 to 18	8	Half trips only.
1903.		
January 14 and 15	2	" "
" 19 to 24	6	" "
" 26 to 31	6	" "
February 2	1	" "
" 3 to 10	8	No trips.
" 11 and 12	2	Half trips only.
" 13 to 25	13	No trips.
" 26	1	Half trip only.
" 27 to March 19	21	No trips.
March 20 to 21	2	Half trips only.
" 22	1	No trips.
" 31	1	Half trip only.
April 2 and 4	2	" "
" 7 and 8	2	No trips.
" 9 and 11	2	Half trips only.
1904.		
December 12, 13, 14, 18, 24 and 28	6	" "
1905.		
January 4, 5, 18, 19 and 23	5	" "
" 24 to March 2	38	No trips.
March 3 and 4	2	Half trips only.
" 5 to 12	8	No trips.
" 13	1	Half trip only.
" 14 to 16	3	No trips.
" 17 and 18	2	Half trips only.
" 19 to 21	3	No trips.
" 22 and 23	2	Half trips only.
" 28	1	No trip.
" 29	1	Half trip only.
April 4 and 5	2	No trips.

SUMMARY.

1902 and 1903.—45 days on which no trips were made.
33 days on which half trips only were made.
1904 and 1905.—54 days on which no trips were made.
19 days on which half trips only were made.

SCHEDULE 'B.'

Term:—27th January to 30th March, Capes Ice-Boat Service, 1905.

Dates.		Dates.	
January	27	February	28 No mail.
"	28	March	1 "
"	29	"	2
"	30 No mail.	"	3
"	31	"	4
February	1 No mail.	"	5 No mail.
"	2	"	6
"	3	"	7
"	4	"	8 No mail.
"	5 No mail.	"	9
"	6	"	10 No mail.
"	7 No mail.	"	11
"	8 "	"	12
"	9	"	13
"	10	"	14
"	11 No mail.	"	15
"	12 "	"	16
"	13 "	"	17
"	14	"	18
"	15	"	19
"	16 No mail.	"	20
"	17	"	21
"	18	"	22
"	19 No mail.	"	23
"	20	"	24
"	21	"	25
"	22	"	26
"	23	"	27
"	24 No mail.	"	28 No mail.
"	25 "	"	29
"	26 "	"	30
"	27 "		

MEMO.—Last mail per steamer on Georgetown-Pictou route 24th January. First mail by '*Minto*' to Georgetown, March 28th.

The ice-boats were not able to take all the mails sent to Tormentine, leaving 100 bags on an average daily. Besides this a large quantity of mail was sent to Pictou from Sackville each day. This was usually books, seeds and heavy matter.

ADDRESS.

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick in the County of Northumberland in the Peerage of the United Kingdom and a Baronet; Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, Governor General of Canada, &c., &c.

We, His Majesty's dutiful and loyal subjects the Legislative Assembly of Prince Edward Island in General Assembly convened approach Your Excellency and represent:

Whereas the Judicial Committee of the Privy Council in its recent decision on the appeal of this province against the judgment of the Supreme Court of Canada, given on the 4th day of November, decided that the representation of this province in the Federal government was liable under the British North America Act, 1867, and the amendments thereto and the terms of Union under which this province entered Confederation, to be reduced below six the number granted to this province by the terms of Union.

And whereas under 'An Act Respecting the Establishment of Provinces in the Dominion of Canada of 1871' it was provided by section 2 that 'The Parliament of Canada may from time to time establish new provinces in any territories forming for the time being part of the Dominion of Canada, but not included in any province thereof, and may at the time of such establishment make provision for the constitution and administration of any such province, and for the passing of laws for the peace, order and good government of such province, and for its representation in the said Parliament.' And also by section 3 'The Parliament of Canada may from time to time with the consent of the legislature of any province of the said Dominion increase, diminish or otherwise alter the limits of such province upon such terms and conditions as may be agreed to by the said legislature, and may with the like consent make provision respecting the effect and operation of any such increase or diminution or alteration of territory in relation to any province affected thereby.'

And whereas it appears by the correspondence and negotiations between your government and this province prior to Prince Edward Island entering the Union this province was led to believe that its representation should not be decreased below six but that it should be entitled under the terms of the 'British North America Act' of 1867, to be increased should the population justify such increase under the provisions of the Act.

And whereas the representation of this province has by the provisions of the Statute of the Dominion passed in 1901 been reduced to four.

And whereas the area of the province of Quebec, which by the terms of the 'British North America Act' was made the pivotal province to regulate the number of members representing the different provinces has under the terms of the said Act of 1871 been increased to the extent of 158,000 square miles.

And whereas by the settlement of the territory thus added to the original area of the province of Quebec the population of that province will be greatly increased and the unit of population proportionately raised thereby tending further and continuously to reduce the representation of this province until in course of time it may cease to be represented.

And whereas it is contrary to the spirit of Confederation and to the intention of the contract of Union entered into by the province that its right to adequate representation in the Federal parliament should be diminished or lost and that it should thus be treated not as an organized province having rights as a province apart from the question of population but as if it were unorganized territory.

And whereas the failure of this province to retain its proper proportion of the natural increase of its population has been largely owing to the changed condition brought about by Confederation and to the nonfulfilment by the government of Canada of the terms of Union in respect to continuous communication between this province and the mainland of Canada.

Be it therefore resolved that in the opinion of this House the earnest attention of the government of Canada should be drawn to the serious position which now confronts this province and that it be urged as strongly as possible upon the government of Canada that some just and equitable provision in accordance with the true intent and meaning of the contract of Union should be made to restore to this province its original representation.

RETURN

(102.)

To an Order of the House of Commons, dated the 13th December, 1909, showing a list of the free mail delivery routes which have been established in Canada, including the port of departure and the place of arrival, the length of each, the number of houses on each route, and the number of boxes on each route.

CHAS. MURPHY,
Secretary of State.

Prince Edward Island.

Rural Mail Delivery Route.		Length of route each way.	Number of rural delivery boxes.
Starting Point.	Terminal Office.		
Augustine Cove	Cape Traverse	3 and 5½	16
Bedeque	Fernwood	9½	8
Bedeque	Summerside	12	37
Cape Traverse	Searleton	6¼	14
Charlottetown	Cherry Valley	12	41
Charlottetown	Victoria	24	6
Cherry Valley	Earnscliffe	7½	13
Clinton	Kensington	6	5
Coleman	Brae Harbour	* 12½	3
Ebenezer	Wheatley River	2½	7
Founds Mills	Emerald	9½	11
Glenfinnan	Hillsboro' Lot 48	7¼	12
Hunters River	Cavendish	29	17
Hunters River	North Rustico	28½	20
Johnston's River	Hillsboro' Lot 48	5	8
Kelvin Grove	Summerside	6¼	7
Kensington	Darnley	15	19
Kensington	French River	* 25	43
Kingston	North River	4	11
Linkletter	Summerside	3	1
Marshfield	Charlottetown	4¾	4
Middleton	Central Bedeque	2	2
Mill River	Roxbury	9¾	12
Miscouche	Ellis River	11½	22
New London	Breadalbane	12	23
North St. Eleanors	Summerside	4½	8
Richmond	Arlington	7¼	9
Summerville	Vernon River Railway Station	4	5
Tryon	Albany	6	22
Winsloe Station	Brackley Beach	* 21	22
Cheverie	Newport	17¼	12
South Ohio	Springdale	* 27	7
Upper Fort Lawrence	Fort Lawrence	2½	9
Yarmouth	Mavillette	21	13

* Round route.

NEW BRUNSWICK.

Rural Mail Delivery Route.		Length of Route each way.	Number of rural delivery boxes.
Starting Point.	Terminal Office.		
Centreville	Knoxford	4	7
Gagetown	Upper Gagetown	10	6
Gagetewn	Welsford	28	35
Greenfield	Florenceville	6	8
Jolicure	Westmoreland Point and Railway Station.	7 and 1	17
Lincoln	Fredericton	8	28
Mouth of Jemseg	Cambridge	17	22
North Lake	Canterbury Station	22	17
Rockland	Upper Dorchester and Railway Station.	$\frac{1}{8}$ and $4\frac{3}{4}$	8
St. John	St. Martins	30	12
Summerfield	Florenceville	13	26
Upper Knoxford	Knoxford	4	26

QUEBEC.

Bolduc	St. Gedeon de Beauce	8	1
Bolduc	St. George's Railway Station	$13\frac{1}{2}$	3
Duclos	Wakefield	15	6
Grande Baie	Chicoutimi	13	6
Liniere	Armstrong and United States boundary line.	11 and $10\frac{1}{2}$	19
Liniere	St. George's Railway Station	$10\frac{3}{4}$ and $1\frac{3}{4}$	11
Quebec	St. Jean d'Orleans and St. Francois d'Orleans.	22 and 6	2
St. Felix de Kingsey	Richmond	15	14
St. Foye	Candiac	4	2

ONTARIO.

Albury	Rednersville	4	15
Algonquin	Brockville	$10\frac{1}{2}$	26
Ameliasburg	Belleville	10	39
Amiens	Strathroy	5	21
Ancaster	Hamilton	7	37
Arkona	Keyser	$5\frac{1}{2}$	47
Arkona	Watford	$13\frac{1}{3}$ and $11\frac{1}{4}$	44
Arthur	Fergus	12	9
Aylmer	Grovesend	*$26\frac{5}{8}$	54
Aylmer	Port Bruce	*21	24
Barrettville	Essex	$8\frac{5}{16}$	20
Bayham	Ingersoll	$20\frac{1}{2}$	18
Bellrock	Moscow Railway Station	$5\frac{1}{2}$	12
Big Point	Chatham	$13\frac{1}{4}$	22
Blenheim	Wheatley	$30\frac{3}{4}$	68
Brighton	Lovett	6	15
Burgessville	Newark	$5\frac{1}{2}$ and $9\frac{1}{2}$	35
Bush Glen	Aultsville	11 and 10	7
Cambray	Lindsay	$10\frac{1}{3}$	28
Campbellford	Brighton	20	21
Cheapside	Jarvis	$12\frac{1}{6}$	17
Clayton	Almonte	10	9
Consecon	Allisonville	8	22
Constance	Seaforth and Harlock	$11\frac{1}{4}$	33
Cotswold	Palmerston	7	26
Cowal	Iona Station	6	19
Crofton	Bloomfield	11	38

*Round route.

ONTARIO—*Continued.*

Rural Mail Delivery Route.		Length of route each way.	Number of rural delivery boxes.
Starting Point.	Terminal Office.		
Cross Hill	Waterloo	13¼	51
Delaware	London	12	42
Dobbinton	Mount Hope	19¾	44
Drysdale	Kippen	10¾	16
Ebordale	Markham	12½	8
Elmwood	Solway	14½	30
Embro	Harrington	25½	46
Ennismore	Peterboro	10	13
Erin	Guelph	20	44
Fairground	Tillsonburg	20½	33
Florence	Bothwell	8½	21
Forest	Ravenswood	8	8
Frankford	Maple View	6 and 2	19
Gesto	Essex	5¼	19
Glenmore	Algonquin	3	2
Granthurst	St. Marys	5	19
Granton	Metropolitan	15	18
Gypsum Mines	Cayuga	4	12
Harley	Hawtrey	15	36
Hartford	Waterford	12	35
Hawkesville	St. Jacobs	6	11
Hensall	Hurondale	13¾	31
Herberts Corner	Osgood Ry. Station	7	6
Howlett	Lambeth	4	19
Huntingfield	Clifford	6½	6
Ilderton	Ettrick (a)	*13⅜	30
Ilderton	Ettrick (b)	*13⅜	
Inadale	Appin	8	13
Kingwood	Crosshill	7	14
Kleinburg Ry. Station	Castlemore	*14	16
Kohler	Cayuga	4½	7
Lakelet	Clifford	5½	15
Lakeside	Thamesford	12	35
Langford	Brantford	8	15
London	Byron	5 and 6	54
Lucan	London	16½	27
Lynnville	G. T. Railway Station	2 1/10	8
Mapleton	Kingsmill	4	18
Merlin	Tilbury	15	22
Mitchell's Bay	Chatham	15½	45
Molesworth	Listowel	7	19
Mosside	Bothwell	16	34
Mono Mills	Caledon East, Ry. Station	7½	16
Mount Nemo	Milton West	10½	59
Odessa	Ernestown Station	5	29
Orangeville	Mono Centre	24¼	30
Oxley	Railway Station	6⅜	42
Paisley	Vesta	17¼	54
Peebles	Woodstock	11½ and 19⅜	22
Port Hope	Bewdley	10 and 19¼	33
Renfrew	Burnstown	8	24
Riverbank	Drayton	6 3/16	11
Roseville	Ayr	4½	13
Rothsay	Moorefield	4½	8
Rutherford	Florence	6	9
Scarboro' Junction Ry. Station	Woburn	*18½	52
Selkirk	Dunnville	18	30
Solmesville	Picton	20⅛	43
Springvale	Hagersville	4	10
Stouffville	Atha	14¼	26
Stouffville	Lemonville	*16	32
Sutton West	Newmarket	22	80
Tain	Simcoe	23¾	29
Thedford	Port Franks	6	28

*Round route.

ONTARIO—*Concluded.*

Rural Mail Delivery Route.		Length of route each way.	Number of rural delivery boxes.
Starting Point.	Terminal Office.		
Unionville	Gormley	*22½	7
Upper	Cayuga	12	25
Vittoria	Port Ryerse	3¾	6
Wabash	Thamesville	12	16
Walmer	Bright	10	19
Waterford	Simcoe	7	31
Wellesley	Baden	9	14
West Montrose	Berlin	15⅛	29
West Point	Picton	10	63
Whitby	Brougham	12	38
White Rose	Aurora	3	13
Wyecombe	Delhi and Ry Stn	8½ and ½	27

MANITOBA.

Arrow River	Orrwold	42½	11
Birtle	Miniota	23	7
Bru	Cypress River	11½	4
Carberry	Montrose	*36	9
Douglas Station	Creeford	*38¼	19
Franklin	Murchison	35¼	5
Grande Pointe	Ile de Chenes	8	8
Hanlan	Oswald	10	3
Lillyfield	Winnipeg	14½	12
Portage la Prairie	Oakland	12	14
Queens Valley	Winnipeg	39¾	19
Russell	Asessippi	15	8
St. Eustache	Elie	6	4
Selkirk	Winnipeg	25¾	8
Thunder Hill	Kenville	13½	11
West Hall	Underhill	8	1

SASKATCHEWAN.

Cando	Traynor	8	1
Crescent Lake	Saltcoats	20	1
Eastview	Pasqua	9½	11
Kelvington	Wadena	29	6
Macoun	Slager	*80	8
Moosomin	Hillburn	20	12
Mount Green	Estevan	33	28
Pense	Stony Beach	17	13
Rainton	Fillmore	14	4
Wolseley	Ellisboro'	9	4

*Round route.

ALBERTA.

Rural Mail Delivery Route.		Length of route each way.	Number of rural delivery boxes.
Starting Point.	Terminal Office.		
Canyon	Lacombe	10	8
Evarts	Eckville and Red Deer	34 and 22½	9
Fountainstown	Clive	21¾	4
Freshfield	Calgary	17	13
Jumping Pond	"	28	17
Lineham	Okotoks	23	7
Lochinvar	Lacombe	21	6
Millarville	Calgary	28 and 36	9
Red Deer	Coal Banks	35	9
Rimbey	Lacombe	36	23
Rosenroll	Highland Park	*43	40
Simons Valley	Calgary	16	3
Strathcona	Agricola	20½	19

BRITISH COLUMBIA.

Colquitz	Victoria	5	12
Kelowna	Vernon	38	35
Kensington Prairie	Cloverdale	12¾	21
Otter Point	Victoria	35	3
Peardonville	Abbotsford	7	10
Rocky Point	Victoria	2½	2
Sidney Ry. Stn.	North Saanich	3	3
Sumas	Chilliwack	6	27
Terra Nova	Vancouver	13½	34

* Round route.

Total number of rural mail delivery routes in operation on the December 15, 1909, 206.

Total number of rural mail delivery boxes in use on that date, 3,945.

The Post Office Department is unable to furnish the number of houses on each rural delivery route.

RETURN

(104a)

1. International Boundary Waters Treaty, signed at Washington 11th January, 1909.

2. Rider atached by the United States Senate.

His Majesty the King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India, and the United States of America, being equally desirous to prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada involving the rights, obligations or interests of either in relation to the other or to the inhabitants of the other, along their common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise, have resolved to conclude a treaty in furtherance of these ends, and for that purpose have appointed as their respective plenipotentiaries:

His Britannic Majesty, the Right Honourable James Bryce, O.M., his Ambassador Extraordinary and Plenipotentiary at Washington; and

The President of the United States, Elihu Root, Secretary of State of the United States;

Who, after having communicated to one another their full powers, found in good and due form, have agreed upon the following articles:

PRELIMINARY ARTICLE.

For the purposes of this treaty, boundary waters are defined as the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and the Dominion of Canada passes, including all bays, arms and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers and waterways, or waters flowing from such lakes, rivers and waterways, or the waters of rivers flowing across the boundary.

ARTICLE I.

The high contracting parties agree that the navigation of all navigable boundary waters shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws and regulations of either country, within its own territory, not inconsistent with such privilege of free navigation and applying equally and without discrimination to the inhabitants, ships, vessels, and boats of both countries.

It is further agreed that so long as this treaty shall remain in force, this same right of navigation shall extend to the waters of Lake Michigan and to all canals connecting boundary waters, and now existing or which may hereafter be constructed on either side of the line. Either of the high contracting parties may adopt rules and regulations governing the use of such canals within its own territory and may charge tolls for the use thereof, but all such rules and regulations and all tolls charged shall

apply alike to the subjects or citizens of the high contracting parties and the ships, vessels, and boats of both of the high contracting parties, and they shall be placed on terms of equality in the use thereof.

ARTICLE II.

Each of the high contracting parties reserve to itself or to the several state governments on the one side and the Dominion or provincial governments on the other as the case may be, subject to any treaty provisions now existing with respect thereto, the exclusive jurisdiction and control over the use and diversion, whether temporary or permanent, of all waters on its own side of the line which in their natural channels would flow across the boundary or into boundary waters; but it is agreed that any interference with or diversion from their natural channel of such waters on either side of the boundary, resulting in any injury on the other side of the boundary, shall give rise to the same rights and entitle the injured parties to the same legal remedies as if such injury took place in the country where such diversion or interference occurs; but this provision shall not apply to cases already existing or to cases expressly covered by special agreement between the parties hereto.

It is understood, however, that neither of the high contracting parties intends by the foregoing provision to surrender any right, which it may have, to object to any interference with or diversions of waters on the other side of the boundary the effect of which would be productive of material injury to the navigation interests on its own side of the boundary.

ARTICLE III.

It is agreed that, in addition to the uses, obstructions, and diversions heretofore permitted or hereafter provided for by special agreement between the parties hereto, no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of boundary waters on the other side of the line, shall be made except by authority of the United States or the Dominion of Canada within their respective jurisdictions and with the approval, as hereinafter provided, of a joint commission, to be known as the International Joint Commission.

The foregoing provisions are not intended to limit or interfere with the existing rights of the government of the United States on the one side and the government of the Dominion of Canada on the other, to undertake and carry on governmental works in boundary waters for the deepening of channels, the construction of breakwaters, the improvement of harbours, and other governmental works for the benefit of commerce and navigation, provided that such works are wholly on its own side of the line and do not materially affect the level or flow of the boundary waters on the other, nor are such provisions intended to interfere with the ordinary use of such waters for domestic and sanitary purposes.

ARTICLE IV.

The high contracting parties agree that, except in cases provided for by special agreement between them, they will not permit the construction or maintenance on their respective sides of the boundary of any remedial or protective works or any dams or other obstructions in waters flowing from boundary waters or in waters at a lower level than the boundary in rivers flowing across the boundary, the effect of which is to raise the natural level of waters on the other side of the boundary unless the construction or maintenance thereof is approved by the aforesaid International Joint Commission.

It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.

ARTICLE V.

The high contracting parties agree that it is expedient to limit the diversion of waters from the Niagara river, so that the level of Lake Erie and the flow of the stream shall not be appreciably affected. It is the desire of both parties to accomplish this object with the least possible injury to investments which have already been made in the construction of power plants on the United States side of the river under grants of authority from the State of New York, and on the Canadian side of the river under licenses authorized by the Dominion of Canada and the province of Ontario.

So long as this treaty shall remain in force no diversion of the waters of the Niagara river above the falls from the natural course and stream thereof shall be permitted except for the purposes and to the extent hereinafter provided.

The United States may authorize and permit the diversion within the State of New York of the waters of said river above the Falls of Niagara, for power purposes, not exceeding in the aggregate a daily diversion at the rate of twenty thousand cubic feet of water per second.

The United Kingdom, by the Dominion of Canada, or the province of Ontario, may authorize and permit the diversion within the province of Ontario of the waters of said river above the Falls of Niagara, for power purposes, not exceeding in the aggregate a daily diversion at the rate of thirty-six thousand cubic feet of water per second.

The prohibitions of this article shall not apply to the diversion of water for sanitary or domestic purposes, or for the service of canals for the purposes of navigation.

ARTICLE IV.

The high contracting parties agree that the St. Mary and Milk rivers and their tributaries (in the State of Montana and the provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power, and the waters thereof shall be apportioned equally between the countries, but in making such equal apportionment more than half may be taken from one river and less than half from the other by either country so as to afford a more beneficial use to each. It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and 31st of October, inclusive, annually the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk river, or so much of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to a prior appropriation of 500 cubic feet per second of the flow of St. Mary river, or so much of such amount as constitutes three-fourths of its natural flow.

The channel of the Milk river in Canada may be used at the convenience of the United States for the conveyance, while passing through Canadian territory, of waters diverted from the St. Mary river. The provisions of Article II. of this Treaty shall apply to any injury resulting to property in Canada from the conveyance of such waters through the Milk river.

The measurement and apportionment of the water to be used by each country shall from time to time be made jointly by the properly constituted reclamation officers of the United States and the properly constituted irrigation officers of His Majesty under the direction of the International Joint Commission.

ARTICLE VII.

The high contracting parties agree to establish and maintain an International Joint Commission of the United States and Canada composed of six commissioners, three on the part of the United States appointed by the president thereof, and three on the part of the United Kingdom appointed by His Majesty on the recommendation of the Governor in Council of the Dominion of Canada.

ARTICLE VIII.

The International Joint Commission shall have jurisdiction over and shall pass upon all cases involving the use or obstruction or diversion of the waters with respect to which under Articles III. and IV. of this treaty the approval of this Commission is required, and in passing upon such cases the Commission shall be governed by the following rules or principles which are adopted by the high contracting parties for this purpose:

The high contracting parties shall have, each on its own side of the boundary equal and similar rights in the use of the waters hereinbefore defined as boundary waters.

The following order of precedence shall be observed among the various uses enumerated hereinafter for these waters, and no use shall be permitted which tends materially to conflict with or restrain any other use which is given preference over it in this order of precedence:

(1) Uses for domestic and sanitary purposes;

(2) Uses for navigation, including the service of canals for the purposes of navigation;

(3) Uses for power and for irrigation purposes.

The foregoing provisions shall not apply to or disturb any existing uses of boundary waters on either side of the boundary.

The requirement for an equal division may in the discretion of the Commission be suspended in cases of temporary diversions along boundary waters at points where such equal division can not be made advantageously on account of local conditions, and where such diversion does not diminish elsewhere the amount available for use on the other side.

The Commission in its discretion may take its approval in any case conditional upon the construction of remedial or protective works to compensate so far as possible for the particular use or diversion proposed, and in such cases may require that suitable and adequate provision, approved by the Commission, be made for the protection and indemnity against injury of any interests on either side of the boundary.

In cases involving the elevation of the natural level of waters on either side of the line as a result of the construction or maintenance on the other side of remedial or protective works or dams or other obstructions in boundary waters or in waters flowing therefrom or in waters below the boundary in rivers flowing across the boundary, the Commission shall require, as a condition of its approval thereof, that suitable and adequate provision, approved by it, be made for the protection and indemnity of all interests on the other side of the line which may be injured thereby.

The majority of the Commissioners shall have power to render a decision. In case the Commission is evenly divided upon any question or matter presented to it for decision, separate reports shall be made by the Commissioners on each side to their own government. The high contracting parties shall thereupon endeavour to agree upon an adjustment of the question or matter of difference, and if an agreement is reached between them, it shall be reduced to writing in the form of a protocol, and shall be communicated to the Commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

ARTICLE IX.

The high contracting parties further agree that any other questions or matters of difference arising between them involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along the common frontier between the United States and the Dominion of Canada, shall be referred from time to time to the International Joint Commission for examination and report, whenever either the government of the United States or the government of the Dominion of Canada shall request that such questions or matters of difference be so referred.

The International Joint Commission is authorized in each case so referred to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

Such reports of the Commission shall not be regarded as decisions of the questions or matters so submitted either on the facts or the law, and shall in no way have the character of an arbitral award.

The Commission shall make a joint report to both governments in all cases in which all or a majority of the Commissioners agree, and in case of disagreement the minority may make a joint report to both governments, or separate reports to their respective governments.

In case the Commission is evenly divided upon any question or matter referred to it for report, separate reports shall be made by the Commissioners on each side to their own government.

ARTICLE X.

Any questions or matters of difference arising between the high contracting parties involving the rights, obligations, or interests of the United States or of the Dominion of Canada either in relation to each other or to their respective inhabitants, may be referred for decision to the International Joint Commission by the consent of the two parties, it being understood that on the part of the United States any such action will be by and with the advice and consent of the Senate, and on the part of His Majesty's government with the consent of the Governor General in Council. In each case so referred, the said Commission is authorized to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

A majority of the said Commission shall have power to render a decision or finding upon any of the questions or matters so referred.

If the said Commission is equally divided or otherwise unable to render a decision or finding as to any questions or matters so referred, it shall be the duty of the Commissioners to make a joint report to both governments, or separate reports to their respective governments, showing the different conclusions arrived at with regard to the matters or questions so referred, which questions or matters shall thereupon be referred for decision by the high contracting parties to an umpire chosen in accordance with the procedure prescribed in the fourth, fifth and sixth paragraphs of Article XLV. of The Hague Convention for the Pacific settlement of international disputes, dated October 18, 1907. Such umpire shall have power to render a final decision with respect to those matters and questions so referred on which the Commission failed to agree.

ARTICLE XI.

A duplicate original of all decisions rendered and joint reports made by the Commission shall be transmitted to and filed with the Secretary of State of the United States and the Governor General of the Dominion of Canada and to them shall be addressed all communications of the Commission.

ARTICLE XII.

The International Joint Commission shall meet and organize at Washington promptly after the members thereof are appointed, and when organized the Commission may fix such times and places for its meetings as may be necessary, subject at all times to special call or direction by the two governments. Each Commissioner, upon the first joint meeting of the Commission after his appointment, shall before proceeding with the work of the Commission, make and subscribe a solemn declaration in writing that he will faithfully and impartially perform the duties imposed upon him under this treaty, and such declaration shall be entered on the records of the proceedings of the Commission.

The United States and Canadian sections of the Commission may each appoint a secretary, and these shall act as joint secretaries of the Commission at its joint sessions and the Commission may employ engineers and clerical assistants from time to time as it may deem advisable. The salaries and personal expenses of the Commission and of the secretaries shall be paid by their respective governments, and all reasonable and necessary joint expenses of the Commission, incurred by it, shall be paid in equal moieties by the high contracting parties.

The Commission shall have power to administer oaths to witnesses and to take evidence on oath whenever deemed necessary in any proceeding, or inquiry, or matter within its jurisdiction under this treaty, and all parties interested therein shall be given convenient opportunity to be heard, and the high contracting parties agree to adopt such legislation as may be appropriate and necessary to give the Commission the powers above mentioned on each side of the boundary, and to provide for the issue of subpœnas and for compelling the attendance of witnesses in proceedings before the Commission. The Commission may adopt such rules of procedure as shall be in accordance with justice and equity, and may make such examination in person and through agents or employees as may be deemed advisable.

ARTICLE XIII.

In all cases where special agreements between the high contracting parties hereto are referred to in the foregoing articles, such agreements are understood and intended to include not only direct agreements between the high contracting parties, but also any mutual arrangement between the United States and the Dominion of Canada expressed by concurrent or reciprocal legislation on the part of Congress and the Parliament of the Dominion.

ARTICLE XIV.

The present treaty shall be ratified by His Britannic Majesty and by the President of the United States of America by and with the advice and consent of the Senate thereof. The ratifications shall be exchanged at Washington as soon as possible and the treaty shall take effect on the date of the exchange of its ratifications. It shall remain in force for five years, dating from the day of exchange of ratifications, and thereafter until terminated by twelve months' written notice given by either high contracting party to the other.

In faith whereof the respective plenipotentiaries have signed this treaty in duplicate and have hereunto affixed their seals.

Done at Washington, the 11th day of January, in the year of our Lord, one thousand nine hundred and nine.

RIDER ATTACHED BY UNITED STATES SENATE.

IN EXECUTIVE SESSION,
SENATE OF THE UNITED STATES, March 3, 1909.

Resolved (Two-thirds of the Senators present concurring therein), That the Senate advise and consent to the ratification of the treaty between the United States and Great Britain, providing for the settlement of international differences between the United States and Canada, signed on the 11th day of January, 1909.

Resolved further (*As a part of this ratification*), That the United States approves this treaty with the understanding that nothing in this treaty shall be construed as affecting, or changing, any existing territorial, or riparian rights in the water, or rights of the owners of lands under water, on either side of the international boundary at the rapids of the St. Mary's river at Sault Ste. Marie, in the use of the waters flowing over such lands, subject to the requirements of navigation in boundary waters and of navigation canals, and without prejudice to the existing right of the United States and Canada, each to use the waters of the St. Mary's river, within its own territory; and further, that nothing in this treaty shall be construed to interfere with the drainage of wet, swamp, and overflowed lands into streams flowing into boundary waters, and that this interpretation will be mentioned in the ratification of this treaty as conveying the true meaning of the treaty, and will, in effect, form part of the treaty.

⊕

RETURN

(113)

To an Order of the House of Commons, dated January 17, 1910, showing:—

1. The name, cost, date of construction, place of construction, and gross tonnage of each of the steam vessels now owned by the Dominion Government.

2. The name of those built in Canada.

3. What ones were thrown open to Canadian competition.

4. In each case that was open to Canadian competition, the difference between the lowest Canadian tender and the price paid.

5. In each case where a contract was made with the builder for the construction of any of the said steam vessels, the month and day when each said contracts were signed, and when each said contracts called for delivery of vessels.

6. The price each of the said steam vessels would have cost if the Government in each case paid the current Canadian customs duty chargeable on vessels constructed outside of Canada.

CHARLES MURPHY.
Secretary of State.

The steam vessels now owned by the Dominion Government, the cost, date and place of construction, and gross tonnage of each.

Name.	Cost.	When built.	Where built.	Gross tonnage.
	$			
Stanley	145,000	1888	Govan, G.B	914 tons.
Minto	185,317	1899	Dundee, G.B.	1,090 "
Aberdeen	87,000	1894	Paisley, G.B.	684 "
Lansdowne	103,000	1884	Maccan, N.S.	680 "
Brant	19,333	1899	Charlottetown, P.E.I.	142 "
Princess	45,000	1896	Grangemouth, G.B.	542 "
Alcedo	14,835 (for refitting)	1905	Ballard, U.S.A.	70 "
Restless	18,000	1906	New Westminster, B.C.	76 "
Hudson	3,600	1903	St. John, N.B.	34 "
Ostrea	3,550	1902	Charlottetown, P.E.I.	len. 50 ft., br. 13 ft., dep. 4·5 ft.
Newington	38,000	1899	Hull, G.B.	193 tons.
Champlain	90,033	1904	Paisley, G.B.	392 "
Quadra	77,000	1891	Paisley, G.B.	583 "
Montcalm	111,000	1904	Yoker, G.B.	1,432 "
Druid	111,000	1902	Paisley, G.B.	503 "
Arctic	75,000	1901	Keil, Germany	762 "
Lady Laurier	185,000	1902	Paisley, G.B.	1,051 "
Constance	45,000	1891	Owen Sound, Ont.	185 "
Eureka	26,000	1893	Glasgow, G.B.	170 "
Simcoe	161,816	1909	Wallsend-on-Tyne, G.B.	916·8 "
Lillooet	150,000	1908	Victoria, B.C.	575 "
Bayfield	50,000	1889	Meadowside, G.B.	276 "
Gulnare	36,000	1893	Glasgow, G.B.	262 "
Shamrock	21,500	1898	Quebec, P.Q.	237 "
Canada	186,000	1904	Barrow-in-Furness, G.B.	411 "
Petrel	41,000	1892	Owen Sound, Ont.	192 "
Curlew	40,000	1892	Owen Sound, Ont.	158 "
Kestrel	72,500	1903	Vancouver, B.C.	13 "
Falcon	9,000	1902	Port Moody, B.C.	71 "
Georgia	7,851	1900	Victoria, B.C.	34 "
Vigilant	156,820	1904	Toronto, Ont.	396 "
Scout	16,669	1900	Cardinal, Ont.	176 "
Lambton	108,038	1908–9	Sorel, Que.	323 "
Reserve	3,300	1884	Buffalo, N.Y.	49 "
La Canadienne	38,933	1880	Glasgow, G.B.	372 "
Rouville		1906	Sorel, Que.	len. 130 ft., br. 26 ft., dep. 16 ft.
Earl Grey	501,266	1909	Barrow-in-Furness G.B.	2,356 tons.
Lady Grey	221,300	1906	Barrow-in-Furness, G.B.	733 "
Lady of the Lake	8,000	1897	Selkirk, Man.	201 "
Christine	17,000	1881	Glasgow, G.B.	140 "
Maisonneuve	8,500	1894	Smith's Falls, Ont.	26·01 "

SESSIONAL PAPER No. 113

LIST of Tugs employed in the St. Lawrence River Ship Channel and Transferred to the Department of Marine and Fisheries.

Name.	Where Built.	When Built.
Frontenac	Sorel, Que	1901.
James Howden	"	1903.
De Levis	"	1902.
St. Jean Iberville	"	1897.
Lac St. Pierre	"	1901.
Portneuf		1875.
Cartier	Sorel, Que	1893.
Emilia	"	1898.
Champlain	"	1901.
Jessie Hume	Buffalo, N.Y.	1878.
Montcalm	Sorel, Que	1903.
Carmelia		Purchased in 1903.
Hosanna (rebuilt at)	Sorel, Que	" 1907.
Vercheres	"	1906.
Dredge No. 8	"	1906-7.
" " 9	Purchased for $150,000	1906.
	Duty added 37,500	
Two Light-ships	187,500	
Lurcher	Built in Toronto at a cost of $179,950	1903.
Anticosti		1904.

STEAM Vessels owned by the Dominion Government which were built in Canada.

Lansdowne	Built by the Department of Marine and Fisheries.			
Brant	"	"	"	"
Ostrea	"	"	"	"
Constance	"	"	"	"
Lillooet	"	"	"	"
Petrel	"	"	"	"
Curlew	"	"	"	"
Kestrel	"	"	"	"
Georgia	"	"	"	"
Vigilant	"	"	"	"
Lambton	"	"	"	"
Rouville	"	"	"	"
Restless	Purchased	"	"	"
Hudson	"	"	"	"
Shamrock	"	"	"	"
Falcon	"	"	"	"
Scout	"	"	"	"
Lady of the Lake	"	"	"	"
Maisonneuve	"	"	"	"

MEMO RE CONSTRUCTION OF DOMINION STEAMERS.

Lansdowne	Date of execution—February 14, 1884.
	Date of completion—August 20, 1884.
Stanley	Date of contract—
	Date of completion—November 18, 1888.
Brant	Date of contract, hull—August 1, 1898.
	Date of contract, machinery—August 24, 1898.
	Date of completion, hull—May 1, 1899.
	Date of completion, machinery—May 1, 1899.
Quadra	Date of execution—November 28, 1890.
	Date of completion—June 6, 1891.
Champlain	Date of contract—July 29, 1904.
	Date of completion—November 30, 1904.
Montcalm	Date of contract—July 30, 1904.
	Date of completion—November 20, 1904.
Druid	Date of contract—June 3, 1901.
	Date of completion—May 15, 1902.
Lady Laurier	Date of contract—June 3, 1901.
	Date of completion—In ten months, not later than June 15, 1902.
Simcoe	Date of contract—June 24, 1908.
	Date of completion—Within 7½ months from date of acceptance of tender.
Lillooet	Date of contract—July 25, 1906.
	Date of completion—September, 31, 1906.
Lambton	Built at the Sorel Shipyard.
Lady Grey	Date of contract—March 13, 1906.
	Date of completion—September 13, 1906.
Rouville	Built at the Sorel Shipyard.
Earl Grey	Date of contract—July 11, 1908.
	Date of completion—Within 11 months of signing of contract.
Canada	Date of contract—About January 11, 1904.
	Date of completion—In 6 months.
Kestrel	Date of contract—March 22, 1901.
	Date of completion—March 20, 1902.
Georgia	Date of contract—March 23, 1901.
	Date of completion—September 7, 1901.
Aberdeen	Date of contract—October 3, 1893.
	Date of completion—July 20, 1894.
Constance, Petrel, Curlew	The contracts were destroyed in the fire of 1897.
Lurcher and Anticosti	Date of contract—November 25, 1902.
	Date of completion—December 1903 and April 1904.
Vigilant	Date of contract—December 1, 1903.
	Date of completion—September 1, 1904.

Steam Vessels which were thrown open to Canadian Competition.

Druid	Lowest tender, Fleming & Ferguson, Paisley	$110,960 00
	'Canadian', Collingwood Shipbuilding Co	170,000 00
Lady Laurier	Lowest tender, Fleming & Ferguson, Paisley	184,983 00
	'Canadian', Collingwood Shipbuilding Co	235,000 00
Lillooet	Lowest tender, Armstrong, Whitworth & Co., Newcastle-on-Tyne, (delivered in England)	111,180 00
	Lowest Canadian Tender, B.C. Marine Railways Co., (delivered at Victoria, B.C	143,000 00
Simcoe	Lowest tender, Swan Hunter & Wigham Richardson, Wallsend, G.B.	158,527 78
	Lowest Canadian tender, Collingwood Shipbuilding Co	217,000 00
Brant	All Canadian Tenders.	
Canada	No Canadian tenders.	
Georgia	All Canadian tenders.	
Vigilant	Only one tender in book, Polson Iron Works.	
Earl Grey	No Canadian tenders.	

Difference between lowest Canadian Tender and Cost.

Druid	Lowest Canadian tender	$170,000
	Cost	111,000
	Difference	59,000
Lady Laurier	Lowest Canadian tender	$235,000
	Cost	185,000
	Difference	50,000
Lillooet	Lowest Canadian tender (accepted)	$143,000
	Cost, with extras, namely:—Forced draft, refrigerator, etc	150,000
Simcoe	Lowest Canadian tender	$217,000
	Cost	161,816
	Difference	56,184

No. 6.

The 'Arctic' having been purchased in Germany, is the only vessel owned by the Department of Marine & Fisheries which would be liable to customs duty, which with the regulation tariff and surtax, would make a duty of $33\frac{1}{3}$ per cent., so that the cost of the boat instead of being $75,000 would have been $100,000.

RETURN

(117)

To an Order of the House of Commons, dated February 7, 1910, showing the total cost to Canada of the Military College Buildings and Grounds, and the amount furnished each year by the Government towards its maintenance.

CHARLES MURPHY.
Secretary of State.

Department of Public Works, Canada,
Accountant's Office,
Ottawa, February 18, 1910.

Return showing the yearly cost to Canada, so far as paid by the Department of Public Works, of the Military College Buildings and Grounds, under the headings of Construction, Repairs and Maintenance.

—	Construction.	Repairs.	Maintenance.	Total.
	$ cts.	$ cts.	$ cts.	$ cts.
To June 30, 1882	102,056 30			102,056 30
1882-1883		6,133 84	1,320 00	7,453 84
1883-1884	7,417 78	10,878 34	1,320 00	19,616 12
1884-1885		66 05		66 05
1885-1886		14 00	1,380 00	1,394 00
1886-1887			1,440 00	1,440 00
1887-1888	575 01	14 00	1,440 00	2,029 01
1888-1889		38 00	1,440 00	1,478 00
1889-1890		13 28	1,485 80	1,499 08
1890-1891	257 01		1,468 00	1,725 01
1891-1892	15 78		1,440 00	1,455 78
1892-1893			1,440 00	1,440 00
1893-1894			1,320 00	1,320 00
1894-1895		6 90	1,440 00	1,446 90
1895-1896			1,440 00	1,440 00
1896-1897		5 00	1,498 50	1,503 50
1897-1898			1,360 00	1,360 00
1898-1899			1,640 00	1,640 00
1899-1900			1,456 50	1,456 50
1900-1901	4,708 39		1,300 25	6,008 64
1901-1902	18,982 78	34 85	1,532 85	20,550 48
1902-1903	39,680 45		2,945 00	42,625 45
1903-1904	5,020 20		2,760 00	7,780 20
1904-1905			3,353 20	3,353 20
1905-1906	6,250 02		3,355 83	9,605 85
1906-1907	1,521 53	294 56	2,481 00	4,297 09
1907-1908	9,477 24		3,142 50	12,619 74
"	469 91			469 91
1908-1909	54,717 47		3,745 50	58,462 97
"	3,337 95			3,337 95
1909-1910	31,293 81		3,660 00	34,953 81
"	6,542 82			6,542 82
	292,324 45	17,498 82	52,604 93	362,428 70

A. G. KINGSTON,
Accountant.

Cameron Falls on Oil Creek, near Waterton Lakes.

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DEPARTMENT OF THE INTERIOR

DOMINION OF CANADA.

REPORT

OF

PROGRESS OF STREAM MEASUREMENTS

FOR

THE CALENDAR YEAR 1909

BY

P. M. SAUDER, C.E., Chief Hydrographer

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1910

]No. 133—1910.]

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To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, G.C.M.G., &c., &c., Governor General of Canada.

MAY IT PLEASE YOUR EXCELLENCY:—

The undersigned has the honour to lay before Your Excellency the report of the progress of Stream Measurements for the year 1909.

Respectfully submitted,

FRANK OLIVER,
Minister of the Interior.

OTTAWA, March 6, 1910.

DEPARTMENT OF THE INTERIOR,
OTTAWA, March 5, 1910.

The Honourable FRANK OLIVER,
Minister of the Interior.

SIR,—I have the honour to submit the report of Stream Measurements for the year 1909 and to recommend that it be published as the first of a series of progress reports.

I have the honour to be, Sir,
Your obedient servant,

W. W. CORY,
Deputy of the Minister of the Interior.

FORESTRY AND IRRIGATION BRANCH,
Department of the Interior,
OTTAWA, 4th March, 1910.

W. W. CORY, ESQ., C.M.G.,
Deputy Minister of the Interior.

SIR,—I beg to submit herewith the first progress report of Stream Measurements for the year 1909, submitted by Mr. P. M. Sauder, C.E., and would recommend that it be published and that a sufficient number of copies be printed to permit of its being widely distributed among those interested in the question of the water supply of Western Canada.

Respectfully submitted,

R. H. CAMPBELL,
Superintendent of Forestry and Irrigation.

DEPARTMENT OF THE INTERIOR,
Hydrographic Surveys,
CALGARY, Alta., Feb. 10, 1910.

SIR,—I beg to submit herewith reports of the Progress of Stream Measurements for the calendar year, 1909.

In submitting this report I realize that it would be more complete and possibly more interesting if a full report and discussion of the methods of obtaining and compiling the data contained therein were given, but owing to the importance of publishing the records at as early a date as possible this report is submitted as a progress report. It briefly outlines the organization and work of the survey and gives in a tabulated form the records of stream flow which have already been compiled. The work of the parties in the Milk River and Maple Creek Districts is dealt with in separate reports by F. H. Peters, C.E., and H. R. Carscallen, B.A. Sc., who had charge, respectively, of the field work in those districts. The original data for the reports of the Calgary and Macleod Districts were collected by H. C. Ritchie, J. C. Keith, A. W. Pae and myself. The assembling of the data and its preparation for the publication was done by A. W. Pae and myself. That portion of the data, shown in the report as obtained previous to 1909, was collected by the Irrigation Surveys under the direction of John Stewart, Commissioner of Irrigation.

I request that these reports be published as the first of a series of Reports of the Progress of Stream Measurements.

Respectfully submitted,

P. M. SAUDER,
Chief Hydrographer.

R. H. CAMPBELL, ESQ.,
Superintendent of Forestry and Irrigation,
Ottawa.

SESSIONAL PAPER No. 133

REPORT

ON THE

PROGRESS OF STREAM MEASUREMENTS FOR THE CALENDAR YEAR 1909.

By P. M. Sauder, Chief Hydrographer.

Introduction.

One of the most important resources of a country is its water supply. In the arid and semi-arid regions, the limit of agricultural developments is determined to a considerable extent by the amount of water available for irrigation, while in all parts of the country the increase in the population of cities and towns makes necessary, additional water supply for domestic and industrial uses, in procuring which both the quantity and quality that may be obtained must be considered. The notable advances made in electric transmission of power have led to the utilization of water powers for the operation of manufacturing establishments, railroads, and municipal lighting plants, many of which are at some distance from the places at which the power is developed.

The success of future irrigation development in Alberta and Saskatchewan depends to a large extent upon a correct estimate of the water supply available and the permanency of that supply. Frequently applications to purchase lands under the Irrigation regulations cannot be dealt with for a considerable time and sometimes not at all, owing to insufficient information as to the water supply. In dealing with projects which must depend entirely on high water and flood stages it is very important that both the quantity of water at those stages and the probable duration of those stages, should be known. Applications to divert water from streams upon which the Department has made no investigations, are often received and cannot be dealt with until an estimate of the water supply can be made. This often discourages investors, who naturally feel that they must depend on the Government for the information as to water supply and do not care to invest money in a project depending almost entirely on a resource of which so little is known. Reliable information can only be obtained by years of systematic observations, and private enterprise cannot be expected to do this.

The flow of a stream varies greatly from year to year, and yet the engineer is often expected to make estimates and prepare plans from observations extending over a short period. Systematic observations should be carried on over a period of several years to determine the general behavior of a stream. Many failures of large power, irrigation and other projects have been due to the fact that the plans were made without sufficient information regarding the water supply.

On the information furnished by the Government on the water supply, will depend to a very great extent, the development of water power in Canada. It only takes a short time to locate a good power site and determine the amount of power which can be developed when the water supply is known. Very often the hydraulic engineer has to spend a year or more in making observations of the discharge of a stream before he can make an estimate of the water power and in many cases it has been found that the possible water power development has been much over-estimated and in other cases much under-estimated.

Many problems in connection with municipal water supply, stock watering, mining, sewage disposal, navigation, etc., are readily solved when definite information on the water supply is available. In the United States, where stream measurements have been carried on systematically for several years, interested parties need only apply to the Government to obtain full information on the flow of almost any river.

The records of stream flow published by the Irrigation Surveys give a fair approximation of the discharge of the principal streams in Southern Alberta and Saskatchawan at the different stages, but do not give the duration of the periods of high and flood discharge. As the water supply in some of the larger streams is apparently almost all recorded, the necessity of carrying on a systematic observance of daily discharge is evident.

The chief features of the hydrographic work are the collection of data relating to the flow of the surface waters and the conditions affecting this flow. Information is also collected concerning the river profiles, duration and magnitude of floods, water power, etc., which may be of use in hydrographic studies.

ORGANIZATION AND SCOPE OF WORK.

These investigations became a distinct feature of this Department in the spring of 1909, when a separate survey was organized, with headquarters at Calgary. The first specific appropriation for hydrographic work was made by Parliament during the session of 1908, an appropriation of $10,000 being made for gauging streams and determining the water supply in Southern Alberta and Saskatchewan. As this vote was not available until the season was too far advanced to organize and equip parties for field work in 1908, only a part of it was used in purchasing instruments and equipment for the parties which were sent out early in 1909. A further appropriation of $10,000 was made to carry on the work for 1909.

In organizing the Hydrographic Surveys it was realized that with the funds available, it would be impossible to make complete investigations of the whole of the water supply in the irrigation tract, but an effort was made to include all the more important streams. Gauging stations had already been established, by the Irrigation Surveys, on a number of the more important streams, and it was important that the observations at these should be continued without interruption. There were, however, many streams of considerable importance upon which there were no gauging stations, It therefore became the policy of the survey to continue the investigations at the stations already established and to establish other stations as soon as possible.

It was decided to place three parties in the field and the irrigation tract was divided into three districts, viz.—Calgary, Macleod and Maple Creek. The outlines of these districts are not definitely defined but each comprises as much of the surrounding district as could be included by one party working from the city or town of the same name.

In each district there was one hydrographer and an assistant, H. R. Carscallen, and H. C. Ritchie were placed in charge of the Maple Creek and Macleod districts, respectively, while I took personal charge of the work in the Calgary district, excepting during the months of July, August, and September when I was engaged in other duties and J. C. Keith was in charge. At the end of September Mr. Ritchie left to resume his studies at the University of Toronto and A. W. Pae was engaged to complete the season's work in the Macleod District and has been retained to complete the computations.

Each party was equipped with a team and light wagon and the necesssary gauging and surveying instruments. It was aimed to supply each hydrographer with sufficient equipment for the proper execution of his work but at the same time to keep the outfit as light as possible, so that the least possible time would be spent in travelling. For this reason no camp equipment was furnished except in the case of the Maple Creek District, where in some localities, accommodation could not be secured. In this respect the residents in the different districts have assisted the work very materially by giving accommodation to the field parties.

With the funds available, from the appropriation for "An Enquiry into Water Rights on St. Mary and Milk Rivers" an extra party was organized and commenced work in the field on July 1st, 1909. This party with F. H. Peters, C.E., in charge, devoted its energies more

particularly to a study of the flow of Milk River and the establishing of gauging stations on that stream, A report of the work of this party is given in detail by Mr. Peters, whose report is appended hereto.

The work of the different hydrographers and assistants during the past season has been very satisfactory and the interest they have taken in the work has been most gratifying. Considering the territory that had to be covered and the limited assistance and equipment at their disposal the amount of data that was collected is surprising.

While every effort was made to establish regular gauging stations on all the more important streams at as early a date as possible, it was impossible to accomplish this on many streams until the season was somewhat advanced. In the early part of the season, owing to numerous fluctuations in the flow, frequent discharge measurements had to be made at the gauging stations already established. After July the flow in the streams was lower and more regular and the hydrographers spent much more time in locating and establishing new gauging stations. In some cases, considerable time had to be spent in reconnaissance to locate the most suitable site for the gauging station.

With the data collected during the past season, some very valuable records of discharge and run-off have been compiled, and in a number of cases these records cover almost the whole of the open season. In some cases, for higher stages, there were scarcely sufficient data for complete records, but with few exceptions the computations are considered to be a very close estimate of the actual flow.

As the survey did not have a rating station, the manufacturers of the meters were asked to have them specially rated before being shipped. This they claimed had been done, but for some reason the rating tables were never furnished, although repeated efforts were made to secure them. The season was far advanced before it was definitely known that they would not be furnished and it was impossible to establish a rating station at that late date, so the general rating table for each particular type of meter had to be used. All meters should be tested from time to time but, except as the result of accidents, it is very improbable that they will differ by any appreciable amount from the standard rating table while new and in good condition. A close watch of each meter and comparisons with other meters did not reveal any defects in any of the new meters. Arrangements are being made for the establishment of a rating station at Calgary, at as early a date as possible and in future the meters used by the survey will be tested and rated regularly.

While the records in this report show the regimen and behaviour of the different streams during the past season and in several cases during part of the season of 1908, it must not be considered that sufficient information has been obtained and that the work at these stations may be discontinued. The precipitation and hence the flow of the streams or the run-off may be very different next season. A study of the general behaviour of the streams should extend over a period of several years.

There are still a number of important streams upon which gauging stations should be established. Many of the streams upon which there is only one gauging station at present are so affected by diversions of water for irrigation and other purposes that gauging stations should be established at two or more points along their course.

Recently there has been a number of applications from parties interested in power projects, for information regarding the flow in certain streams, and no doubt such applications will be more numerous in the near future. On streams where power is likely to be developed, special attention should be given to the low water flow, which in most cases occurs during the winter. For this reason it is very important that stream measurements should be continued during the winter on a number of the more important streams.

EXPLANATION AND USE OF DATA.

The volume of water flowing in a stream is known as run-off. In expressing it various units are used, depending upon the kind of work for which the data are needed. Those used in this report are "second-feet", "acre-feet", "run-off per square mile" and "run-off in depth in inches" and may be defined as follows:

"Second-foot" is an abbreviation for cubic foot per second and is the body of water flowing in a stream one foot wide and one foot deep at the rate of one foot per second.

The "acre-foot" is the unit of capacity used in connection with storage for irrigation work, and is equivalent to 43,560 cubic feet. It is the quantity required to cover an acre to a depth of one foot.

The expression "second-feet per square mile" means the average number of cubic feet of water flowing each second from every square mile of drainage area on the assumption that the run-off is uniformly distributed.

"Depth in inches" means the depth of water in inches that would have covered the drainage area, uniformly distributed, if all the water could have accumulated on the surface. This quantity is used for comparing run-off with rainfall, which quantity is usually given in depth in inches.

It should be noticed that "acre-feet and depth in inches" represent the actual quantities of water which are produced during the periods in question while "second-feet" on the contrary, is merely a rate of flow per second.

The data obtained during the past two seasons and the estimates made therefrom have been compiled in tabulated form and for each regular gauging station are given, as far as available, the following data:

1. Description of station.
2. List of discharge measurements.
3. Daily gauge height and discharge table.
4. Table of monthly discharges and run-off.

The description of stations gives such general information about the locality and equipment as would enable the reader to find and use the station. It also gives, as far as possible, a complete history of all the changes that have occurred since the station was established and that might affect the records in any way.

The list of discharge measurements gives the results of all the discharge measurements that have been made at or in the vicinity of the gauging station or have been used in completing the records for the gauging station. The table gives the date on which the measurement was made, the name of the hydrographer, the width and area of cross-section, the gauge height, and the discharge in second feet.

The table of daily gauge heights and discharges given in this report is a combination of two tables kept in the office of the survey, namely the table of daily gauge heights and the table of daily discharges. The table of daily gauge heights gives the daily fluctuations of the surface of the stream as reported by the observer. The gauge height given in the table represents the elevation of the surface of the water above the zero of the gauge. During high water, two observations of the gauge were made at some stations and the gauge height given in the table is the mean of the observations for the day. The discharge measurements and gauge heights are the base data from which the other tables are computed. The table of daily discharges is the discharge in second feet, corresponding to the stage of the stream, as given by the gauge heights.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gauge height was highest. As the gauge height is the mean for the day, there might have been short periods when the water was higher and the corresponding discharge greater than given in this column. Likewise, in the column "Minimum" the quantity given is the mean flow for the day when the mean gauge height was lowest. The column headed "Mean" is the average flow for each second during the month. The computations of the quantities in the remaining columns have been based upon this mean. The accuracy of the data in these columns depends upon a correct estimate of the drainage area. The drainage area for each gauging station was marked off on the sectional maps of the Department and the area taken off with a planimeter. In many districts, information regarding topographical features is very incomplete and the computed areas are only approximate. As the surveys of the Department are extended and completed these computations will be checked and, if necessary, corrected.

Bow River at Calgary, Alta.

This station was established May 5th, 1908, by P. M. Sauder. It is located at the Cushing traffic bridge on the north side of section 12, Tp. 24, Range 1, west of the 5th Mer. It is below the mouths of Elbow river and Nose creek and the intake of The Canadian Pacific Railway Company's canal.

At ordinary stages the stream is divided into two channels by the first pier from the right bank and in high water and flood stages, it is divided into three channels by the piers. The right bank is high and does not overflow, but some years ago the flat on the east side was submerged for a short period during an excessive flood. In recent years a dyke was built along the left bank to confine the stream within its banks at all stages. The bed and banks of the stream are liable to shift during high water and flood stages of the stream. The channel is straight for 300 feet above the station; above this there is a gravel bar, around which the stream shifts from time to time. The channel is straight to a point about 400 feet below the station, beyond which it gradually turns toward the left.

Discharge measurements are made from the bridge at all stages. The initial point for soundings is the west side of the left abutment. The distances are marked at every five feet, on the bottom cord of the downstream side of the bridge.

The gauge which is of the standard chain type was read daily by James Millen, who lives about 200 yards from the west end of the bridge. The length of the chain is 20.30 feet. The gauge is referred to a bench mark on the first pier from the left bank; elevation 3.91.

Discharge Measurements of Bow River at Calgary, Alta., in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
April 29	P. M. Sauder	192·5	730	2·73	3·35	1,996
May 11	do	210·0	1,059	4·72	5·00	4,994
Mag 16	H. R. Carscallen	218·0	1,160	5·22	5·38	6,053
June 3	P. M. Sauder	298·6	1,893	6·92	8·03	13,099
July 20	H. R. Carscalle.n	287·9	2,234	4·82	6·99	10,779
September 1	do	211·5	1,607	2·56	4·50	4,109
October 9	P. M. Sauder	201·5	1,404	1·63	3·52	2,284
1909.						
April 23	P. M. Sauder	174·0	1,169	1·07	2·69	1,248
May 21	do	205·5	1,472	2·52	3·98	3,713
June 7	do	284·5	2,244	5·71	7·05	12,807
June 26	J. C. Keith	274·0	2,159	5·21	6·73	11,242
June 30	do	277·5	2,074	4·91	6·43	10,179
July 7	do	334·2	2,863	7·67	8·99	21,952
July 16	do	278·5	2,095	4·90	6·46	10,272
August 6	do	228·5	1,821	3·85	5·46	7,019
August 26	do	209·0	1·564	2·71	4·40	4,252
September 17	do	203·5	1,425	2·18	3·785	3,014
October 26	P. M. Sauder	196·5	1,306	1·50	3·30	1,958

Daily Gauge Height and Discharge of Bow River, at Calgary, Alta., for 1908.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	6·70	9,090	6·70	9,490	5·50	6,400	4·60	4,300	3·80	2,790
2	.....	.....	8·95	16,325	6·60	9,210	5·60	6,660	4·40	3,900	3·80	2,790
3	.....	.....	8·25	13,820	7·20	11,070	5·50	6,400	4·30	3,700	3·80	2,790
4	.....	.....	8·45	14,550	7·70	12,720	5·50	6,400	4·30	3,700	3·80	2,790
5	.....	.....	9·50	18,450	7·50	12,090	5·30	5,900	4·30	3,700	3·80	2,790
6	.....	.....	9·60	18,880	7·00	10,500	5·30	5,900	4·30	3,700	3·70	2,620
7	.....	.....	9·45	18,330	7·00	10,520	5·30	5,900	4·20	3,510	3·70	2,620
8	.....	.....	9·20	17,390	7·00	10,540	5·40	6,150	4·20	3,510	3·70	2,620
9	.....	.....	8·90	16,280	6·90	10,260	5·30	5,900	4·20	3,510	3·60	2,450
10	5·00	4,990	9·50	18,570	7·60	12,530	5·30	5,900	4·20	3,510	3·40	2,110
11	5·00	4,990	9·10	17,080	7·60	12,550	5·30	5,900	4·20	3,510	3·40	2,110
12	5·10	5,200	9·00	16,740	7·50	12,230	5·30	5,900	4·20	3,510	3·40	2,110
13	5·30	5,640	8·80	15,990	7·50	12,250	5·30	5,900	4·10	3,330	3·40	2,110
14	5·30	5,640	8·20	13,890	7·50	12,270	5·20	5,650	4·20	3,510	3·40	2,110
15	5·35	5,750	7·90	12,800	7·50	12,290	5·00	5,160	4·30	3,700	3·40	2,110
16	5·40	5,860	8·00	13,160	7·50	12,310	4·90	4,930	4·30	3,700	3·40	2,110
17	5·75	6,660	8·30	14,300	7·50	12,330	4·90	4,930	4·30	3,700	3·40	2,110
18	5·65	6,425	7·80	12,660	7·40	12,030	4·90	4,930	4·50	4,100	3·30	1,940
19	5·55	6,195	7·40	11,430	7·30	11,720	4·90	4,930	4·50	4,100	3·40	2,110
20	5·50	6,080	7·40	11,460	7·00	10,780	4·90	4,930	4·40	3,900	3·50	2,280
21	5·45	5,970	7·20	10,860	6·90	10,470	4·90	4,930	4·30	3,700	3·30	1,940
22	5·30	5,640	7·00	10,260	6·90	10,470	4·90	4,930	4·20	3,510	3·30	1,940
23	5·30	5,640	6·70	9,430	6·70	9,850	4·90	4,930	4·20	3,510	3·30	1,940
24	5·20	5,420	6·50	8,890	6·70	9,850	4·90	4,930	4·20	3,510	3·30	1,940
25	5·30	5,640	6·70	9,450	6·70	9,850	5·10	5,400	4·20	3,510	3·40	2,110
26	5·50	6,080	7·60	12,180	6·50	9,240	5·10	5,400	4·20	3,510	3·40	2,110
27	5·50	6,080	8·10	13,960	6·30	8,640	5·10	5,400	4·20	3,510	3·40	2,110
28	5·50	6,080	7·60	12,300	6·20	8,340	4·80	4,710	3·90	2,970	3·40	2,110
29	5·50	6,080	7·30	11,320	6·00	7,760	4·80	4,710	3·90	2,970	.....	.....
30	5·60	6,310	6·70	9,470	5·90	7,480	4·70	4,500	3·80	2,790	.....	.....
31	5·90	7,020	.....	.....	5·50	6,400	4·60	4,300	.....	.....	.....	.....

DAILY Gauge Height and Discharge of Bow River, at Calgary, Alta., for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2·70	1,280	6·60	11,100	6·70	11,130
2	.....	.....	2·90	1,620	7·60	15,230	6·90	11,910
3	.....	.....	3·30	2,370	8·60	20,220	7·00	12,330
4	.....	.....	3·70	3,130	8·30	18,660	7·30	13,610
5	.....	.....	3·00	1,800	7·90	16,670	7·50	14,480
6	.....	.....	2·90	1,620	7·60	15,230	7·50	14,480
7	.....	.....	2·80	1,440	7·00	12,600	9·00	22,020
8	.....	.....	2·80	1,440	6·60	10,971	8·90	21,490
9	.....	.....	2·70	1,280	6·30	9,884	8·50	19,380
10	.....	.....	2·80	1,440	6·30	9,873	8·30	18,340
11	.....	.....	3·30	2,370	6·60	10,936	7·80	15,860
12	.....	.....	3·10	1,990	7·50	14,684	7·60	14,940
13	.....	.....	3·50	2,750	7·80	16,054	7·30	13,610
14	.....	.....	3·50	2,750	8·20	18,024	7·10	12,750
15	.....	.....	3·70	3,130	8·10	17,504	6·70	11,130
16	.....	.....	3·50	2,750	8·00	16,988	6·50	10,400
17	.....	.....	3·30	2,370	8·20	17,974	6·50	10,400
18	.....	.....	3·30	2,370	8·30	18,470	6·40	10,040
19	.....	.....	3·70	3,130	8·20	17,941	6·20	9,360
20	2·70	1,280	4·00	3,760	8·20	17,925	6·00	8,690
21	2·70	1,280	4·00	3,760	8·00	16,910	5·80	8,040
22	2·70	1,280	4·20	4,200	7·90	16,391	5·80	8,040
23	2·70	1,280	4·30	4,430	7·70	15,441	5·70	7,740
24	2·70	1,280	4·80	5,640	7·10	12,776	5·80	8,040
25	2·80	1,440	5·50	7,520	6·90	11,922	5·90	8,360
26	2·80	1,440	5.90	8,740	6·80	11,510	6·00	8,690
27	2.80	1,440	5.70	8,120	6.50	10,400	6.80	11,510
28	2·90	1,620	6·00	9,050	6·50	10,400	6·70	11,130
29	2·70	1,280	6·20	9,700	6·50	10,400	6·30	9,700
30	2·70	1,280	6·30	10,040	6·40	10,040	6·10	9,020
31	.....	.....	6,20	9,700	.....	.....	6·00	8,690

DAILY Gauge Height and Discharge of Bow River, at Calgary, Alta., for 1908-9.—*Con.*

Day.	August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	5·90	8,360	4·40	4,290	3·60	2,640	3·20	1,880
2	5·80	8,040	4·30	4,070	3·70	2,830	3·20	1,880
3	5·70	7,740	4·30	4,070	3·70	2,830	3·20	1,880
4	5·70	7,740	4·30	4,070	3·80	3,020	3·20	1,880
5	5·60	7,440	4·40	4,290	3·70	2,830	3·20	1,880
6	5·40	6,850	4·40	4,290	3·70	2,830	3·20	1,880
7	5·30	6,570	4·40	4,290	3·60	2,640	.....	.....
8	5·10	6,010	4·40	4,290	3·60	2,640	.....	.....
9	5·00	5,730	4·30	4,070	3·60	2,640	.....	.....
10	5·00	5,730	4·30	4,070	3·50	2,450	.....	.....
11	4·90	5,470	4·30	4,070	3·50	2,450	.....	.....
12	4·90	5,470	4·30	4,070	3·60	2,640	.....	.....
13	4·80	5,220	4·20	3,850	3·60	2,640	.....	.....
14	4·80	5,220	4·10	3,630	3·50	2,450	.....	.....
15	4·80	5,220	4·00	3,410	3·50	2,450	.....	.....
16	4·80	5,220	3·90	3,210	3·50	2,450	.....	.....
17	4·70	4,980	3·80	3,020	3·40	2,260	.....	.....
18	4·70	4,980	3·90	3,210	3·40	2,260	.....	.....
19	4·70	4,980	3·90	3,210	3·40	2,260	.....	.....
20	4·70	4,980	3·90	3,210	3·40	2,260	.....	.....
21	4·70	4,980	3·90	3,210	3·40	2,260	.....	.....
22	4·70	4,980	3·80	3,020	3·40	2,260	.....	.....
23	4·70	4,980	3·80	3,020	3·30	2,070	.....	.....
24	4·70	4,980	3,70	2,830	3·30	2,070	.....	.....
25	4·60	4,740	3·60	2,640	3·30	2,070	.....	.....
26	4·40	4,290	3·60	2,640	3·30	2,070	.....	.....
27	4·50	4,510	3·60	2,640	3·20	1,880	.....	.....
28	4·60	4,740	3·60	2,640	3·20	1,880	.....	.....
29	4·50	4,510	3·50	2,450	3·20	1,880	.....	.....
30	4·40	4,290	3·50	2,450	3·20	1,880	.....	.....
31	4·40	4,290	.....	.....	3·20	1,880	.....	.....

Monthly Discharge of Bow River at Calgary, Alta., for 1908-1909.

[Drainage area, 3,828 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on Drainage area	Total in acre-feet.
1908.						
May (10-31)	7,093	5,063	5,954·9	1·556	1·273	259,850
June	18,880	9,050	13,701·5	3·579	3·993	815,290
July	13,134	6,631	10,801·1	2·822	3·253	664,167
August	6,873	4,496	5,652·2	1·476	1·702	347,536
September	4,496	2,904	3,648·2	0·953	1·063	217,084
October (1-28)	2,904	1,940	2,400·2	0·627	0·653	133,300
The period						2,437,227
1909.						
April (20-30)	1,620	1,280	1,354·5	0·354	0·145	29,553
May	10,126	1,280	4,176·2	1·091	1·258	256,784
June	20,306	10,069	14,527·4	3·795	4·234	864,444
July	22,051	8,060	12,263·2	3·204	3·694	754,018
August	8,680	4,314	5,878·9	1·536	1·771	361,482
September	4,758	2,490	3,703·0	0·967	1·084	220,343
October	3,106	1,880	2,422·9	0·633	0·729	148,977
November (1-6)	1,880	1,880	1,880·0	0·491	0·109	22,373
The period						2,657,974

Note.—The discharges of the Canadian Pacific Railway Company's canal have been added to those of Bow River at Cushing Bridge, in this table.

Canadian Pacific Railway Company's Canal near Calgary, Alta.

This station was established May 9, 1908, by P. M. Sauder. It is about four miles from the intake, at the bridge (No. 2) on the road allowance on the east side of section 36, Tp. 23, Range 1 west of the 5th Meridian.

A plain staff gauge, graduated to feet and hundredths, is fastened to a pile on the upstream side of the bridge. Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inside of the first plank of the floor on the north end of the bridge. The right bank of the ditch is composed of a mixture of clay and gravel, while the bottom and left bank are composed of clay only. The bottom of the ditch is below grade at this point. The canal carries water only during irrigating season. There are no laterals from the ditch above the gauging station. The gauge was read once each day by J. E. Black, ditch rider for the company.

DISCHARGE Measurements of Canadian Pacific Railway Company's Canal near Calgary, Alta., in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec. ft.*
May 12	H. R. Carscallen	49·5	84	0·74	2·19	63
July 22	....do	46·5	60	0·27	1·625	16
September 2	....do	46·5	62	0·26	1·64	15·8
October 1	H. C. Ritchie	52·0	103	0·95	2·45	98
1909.						
June 11	P. M. Sauder	51·5	111	1·27	2·47	141
June 25	J. C. Keith	45·0	62	0·36	1·47	22
July 3	....do	48·0	84	0·82	1·975	69
July 17	....do	50·0	97	0·98	2·20	96
August 6	....do	56·0	159	1·89	3·40	301
August 30	....do	56·5	165	1·92	3·48	318
September 18	....do	55·5	175	1·94	3·70	341

DAILY Gauge Height and Discharge of Canadian Pacific Railway Company's Canal near Calgary, Alta., for 1908.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*
1	.....	.....	2·30	86	4·00	376	3·10	213	3·00	196	2·50	114
2	.....	.....	2·30	86	4·10	395	3·10	213	1·70	23	1·40	5
3	.....	.....	1·40	5	4·20	414	3·10	213	1·60	16	2·50	114
4	.....	.....	1·10	0	4·20	414	3·10	213	1·60	16	2·50	114
5	.....	.....	0·90	0	4·20	414	3·10	213	1·60	16	2·50	114
6	.....	.....	0·90	0	4·10	395	3·10	213	2·60	129	1·40	5
7	.....	.....	0·90	0	4·10	395	3·10	213	2·60	129	1·00	0
8	2·50	114	0·90	0	4·10	395	3·10	213	2·70	144	2·50	114
9	2·50	114	0·90	0	4·10	395	3·10	213	2·40	100	3·60	302
10	2·20	73	0·90	0	2·90	178	3·10	213	1·50	10	3·40	266
11	2·20	73	0·90	0	1·70	23	3·10	213	1·50	10	3·40	266
12	2·20	73	0·80	0	1·40	5	3·10	213	1·80	31	3·40	266
13	2·20	73	0·80	0	1·40	5	3·10	213	1·90	40	3·40	266
14	2·20	73	0·90	0	1·30	2	3·10	213	2·10	61	3·40	266
15	2·20	73	0·90	0	1·20	1	3·10	213	2·80	161	3·50	284
16	2·20	73	0·90	0	1·20	1	3·10	213	2·00	50	3·60	302
17	2·20	73	0·90	0	1·10	0	3·10	213	1·40	5	3·60	302
18	2·20	73	0·90	0	1·10	0	3·10	213	1·00	0	3·60	302
19	2·20	73	0·90	0	2·60	129	3·00	196	1·50	10	2·50	114
20	2·30	86	0·90	0	2·60	129	3·00	196	1·40	5	1·50	10
21	2·20	73	0·90	0	2·60	129	3·00	196	1·60	16	1·50	10
22	2·20	73	0·90	0	2·20	73	2·90	178	1·60	16	1·00	0
23	2·20	73	2·20	73	3·90	357	3·00	196	1·80	31	0·90	0
24	2·20	73	2·80	161	3·90	357	3·00	196	1·80	31	0·80	0
25	2·20	73	2·90	178	3·90	357	3·10	213	1·90	40	0·80	0
26	2·20	73	3·00	196	3·40	266	3·10	213	2·50	114	0·80	0
27	2·20	73	3·00	196	3·30	248	3·00	196	2·50	114	0·80	0
28	2·20	73	3·00	196	3·30	248	3·00	196	2·50	114	0·80	0
29	2·20	73	3·00	196	3·20	231	3·00	196	2·50	114	0·80	0
30	2·20	73	3·90	357	3·20	231	3·00	196	2·50	114	0·80	0
31	2·20	73	.....	.....	3·20	231	3·00	196	.....	.....	0·80	0

DAILY Gauge Height and Discharge of Canadian Pacific Railway Company's Canal near Calgary, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*
1	.....	.....	2·10	86	2·00	73	3·50	320	1·50	24	3·20	266
2	.....	.....	2·10	86	2·00	73	3·50	320	3·50	320	3·20	266
3	0·00	00	2·10	86	1·50	24	3·50	320	3·50	320	3·20	266
4	1·80	50	2·10	86	1·50	24	3·40	302	4·10	430	2·10	86
5	1·90	61	2·10	86	1·40	17	3·40	302	4·30	468	2·10	86
6	2·70	179	2·10	86	1·30	12	3·40	302	4·10	430	2·10	86
7	2·70	179	2·10	86	1·60	31	3·40	302	1·90	61	2·10	86
8	2·80	196	2·70	179	1·90	61	3·40	302	1·10	3	2·10	86
9	2·80	196	2·80	196	1·90	61	3·50	320	3·20	266	2·10	86
10	2·90	213	2·80	196	1·90	61	3·60	338	3·20	266	1·80	50
11	3·10	248	2·50	146	1·90	61	3·60	338	3·50	320	1·40	17
12	3·10	248	2·40	130	1·80	50	3·60	338	3·00	230	1·30	12
13	3·20	266	2·00	73	1·80	50	3·60	338	2·80	196	1·20	7
14	3·40	302	1·80	50	1·80	50	3·60	338	3·10	248	1·20	7
15	2·40	130	1·60	31	1·80	50	3·60	338	3·20	266	1·20	7
16	2·30	114	1·50	24	2·10	86	3·60	338	3·00	230	1·20	7
17	2·20	99	1·50	24	2·10	86	3·60	338	3·20	266	1·20	7
18	2·10	86	1·50	24	2·00	73	3·50	320	3·00	230	1·20	7
19	2·20	99	1·50	24	2·20	99	3·50	320	3·20	266	1·00	1
20	2·30	114	1·50	24	2·70	179	3·20	266	3·20	266	1·00	1
21	2·30	114	1·50	24	3·50	320	3·20	266	3·20	266	1·00	1
22	2·30	114	1·50	24	3·50	320	2·90	213	2·90	213	1·00	1
23	2·30	114	1·50	24	3·50	320	3·20	266	1·60	31	0·90	0
24	2·00	73	1·50	24	3·50	320	3·50	320	2·30	114	0·90	0
25	2·00	73	2·10	86	3·50	320	3·50	320	3·20	266	0·90	0
26	2·00	73	3·30	284	3·50	320	3·50	320	3·20	266	0·90	0
27	2·10	86	3·20	266	3·50	320	3·50	320	3·20	266	0·80	0
28	2·10	86	1·90	61	3·60	338	3·50	320	2·60	162	0·80	0
29	2·10	86	1·70	40	3·70	356	2·90	213	2·40	130	0·80	0
30	2·10	86	1·70	40	3·80	374	1·50	24	1·70	40	0·80	0
31	2·10	86	.....	.....	3·50	320	1·50	24	.....	.....	0·80	0

BOW RIVER AT BANFF, ALTA.

This station was established May 25th, 1909, by P. M. Sauder. It is located at the highway bridge in the village of Banff, about one mile from the Canadian Pacific Railway Station. It is a short distance above the mouth of Spray River and below the Vermilion Lakes.

The channel above the station is straight for about 300 feet, but turns sharply to the right at about 600 feet upstream. The current is sluggish about 300 yards above the station but is fairly swift at the station. The channel below the station is straight for about 400 feet, then curves to the right. The stream breaks into rapids a short distance below the station and reaches the Spray Falls about a quarter of a mile below.

The stream is divided into four channels by the piers supporting the bridge. Both banks are low and covered with brush, but not liable to overflow. The bed of the stream is composed of gravel and boulders. There is a deep hole at the station near the right bank, but the greater part of the cross-section is uniform.

Discharge measurements are made from the bridge. The initial point for soundings is one and one-half feet from the north end of the bridge. The distances are marked on the bottom cord of the downstream side of the bridge.

A plain staff gauge, graduated to feet and tenths, is attached vertically to the down-stream side of the centre pier. It is referred to a bench mark on the top of the same pier; elevation 6.51. The gauge was read twice daily by N. B. Sanson, Meteorological Observer, at Banff.

DISCHARGE Measurements of Bow River at Banff, Alta., in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Dis-charge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec. ft.*
June 9	P. M. Sauder	316·5	1,228	3·05	2·69	3,737
June 23	J. C. Keith	319·5	1,513	4·09	3·55	6,184
July 8	do	320·5	1,931	5·48	4·86	10,586
July 22	do	312·5	1,260	3·20	2·875	4,033
August 9	do	298·0	1,045	2·27	2·38	2,379
September 3	do	294·0	994	2·12	2·20	2,104
September 23	do	257·0	774	1·43	1·50	1,122

DAILY mean Gauge Height and Discharge of Bow River at Banff, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Dis-charge.	Gauge height	Dis-charge.	Gauge height.	Dis-charge
	Feet.	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*
1			2·80	4,015	3·50	6,020
2			3·70	6,680	3·50	6,020
3			4·10	8,020	3·60	6,350
4			3·70	6,680	3·70	6,680
5			3·40	5,715	3·90	7,345
6			3·00	4,560	4·20	8,360
7			2·80	4,015	5·00	11,060
8			2·60	3,510	5·00	11,060
9			2·70	3,760	4·50	9,380
10			3·00	4,560	4·10	8,020
11			3·50	6,020	4·00	7,680
12			3·80	7,010	3·70	6,680
13			4·00	7,680	3·50	6,020
14			4·00	7,680	3·30	5,415
15			4·00	7,680	3·20	5,120
16			4·00	7,680	3·20	5,120
17			4·40	9,040	3·20	5,120
18			4·30	8,700	3·10	4,830
19			4·30	8,700	2·95	4,390
20			4·10	8,020	2·85	4,090
21			4·10	8,020	2·80	3,920
22			3·90	7,345	2·90	4,090
23			3·50	6,020	3·00	4,200
24			3·30	5,415	3·10	4,330
25	1·60	1,400	3·10	4,840	3·00	4,100
26	1·80	1,770	3·10	4,840	3·00	4,060
27	2·00	2,170	3·10	4,840	3·10	4,190
28	2·30	2,800	3·20	5,125	3·10	4,130
29	2·60	3,510	3·10	4,840	3·00	3,920
30	2·50	3,260	3·20	5,125	3·00	3,880
31	2·50	3,260			3·00	3,820

DAILY mean Gauge Height and Discharge of Bow River at Banff, for 1909—*Concluded.*

Day.	August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*	*Feet.*	*Sec. ft.*
1	3·00	3,780	2·10	1,955	1·75	1,460	0·90	475
2	2·90	3,560	2·10	1,955	1·60	1,250	0·90	475
3	2·80	3,350	2·20	2,100	1·60	1,250	0·95	525
4	2·70	3,140	2·20	2,100	1·50	1,120	0·95	525
5	2·70	3,080	2·10	1,955	1·50	1,120	0·90	475
6	2·55	2,800	2·10	1,955	1·40	1,000	0·90	475
7	2·40	2,500	2·10	1,955	1·50	1,120	0·80	375
8	2·40	2,450	2·20	2,100	1·40	1,000	0·80	375
9	2·40	2,400	2·10	1,955	1·30	890	0·90	475
10	2·30	2,250	2·10	1,955	1·40	1,000	0·90	475
11	2·40	2,400	2·10	1,955	1·40	1,000	0·90	475
12	2·40	2,400	2·00	1,810	1·30	890	.....	.....
13	2·40	2,400	1·90	1,670	1·30	890	.....	.....
14	2·40	2,400	1·90	1,670	1·30	890	.....	.....
15	2·40	2,400	1·80	1,530	1·20	785	.....	.....
16	2·40	2,400	1·80	1,530	1·20	785	.....	.....
17	2·40	2,400	1·80	1,530	1·20	785	.....	.....
18	2·30	2,250	1·90	1,670	1·10	680	.....	.....
19	2·40	2,400	1·80	1,530	1·10	680	.....	.....
20	2·40	2,400	1·70	1,390	1·10	680	.....	.....
21	2·40	2,400	1·60	1,250	1·10	680	.....	.....
22	2·30	2,250	1·60	1,250	1·10	680	.....	.....
23	2·20	2,100	1·50	1,120	1·10	680	.....	.....
24	2·10	1,955	1·40	1,000	1·10	680	.....	.....
25	2·10	1,955	1·40	1,000	1·00	575	.....	.....
26	2·30	2,250	1·40	1,000	1·00	575	.....	.....
27	2·50	2,560	1·40	1,000	1·00	575	.....	.....
28	2·25	2,175	1·40	1,000	0·95	525	.....	.....
29	2·10	1,955	1·40	1,000	0·95	525	.....	.....
30	2·10	1,955	1·75	1,460	1·00	575	.....	.....
31	2·10	1,955	.....	.....	0·95	525	.....	.....

NOTE.—On September 23rd the gauge was lowered 1 foot and all previous observations were increased 1 foot to apply to the present position of the gauge.

MONTHLY Discharge of Bow River at Banff, Alta., for 1909.

[Drainage area, 876 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
May (25-31)	3,510	1,400	2,595.7	2.963	0.771	36,039
June	9,040	3,510	6,204.5	7.082	7.901	369,193
July	11,060	3,920	5,787.1	6.606	7.616	355,833
August	3,780	1,955	2,473.2	2.823	3.255	152,066
September	2,100	1,000	1,578.3	1.801	2.009	93,918
October	1,460	525	834.5	0.952	1.097	51,311
November (1-11)	525	375	465.9	0.532	0.218	10,165
The period	.....	.....	.....	.....	.....	1,068,527

Elbow River at Calgary, Alta.

This station was established May 8th, 1908, by P. M. Sauder. It is located near the old General Hospital in Calgary, in the southeast quarter of section 15, township 24, range 1 west of the 5th Meridian. There are no tributaries below this station and there is no water diverted from the river except that used by the City of Calgary, whose intake is about eleven miles upstream.

The stream is confined to one channel. The left bank is high and does not overflow. The right bank is covered with brush and may overflow at extreme flood stage of the stream. The bed of the stream is composed of boulders and gravel and is not liable to change at the station, but may do so further up the stream where there is a small ripple. The channel is straight for about 500 feet below and above the station. The current is slow in low water stages of the stream but fairly swift in the higher stages.

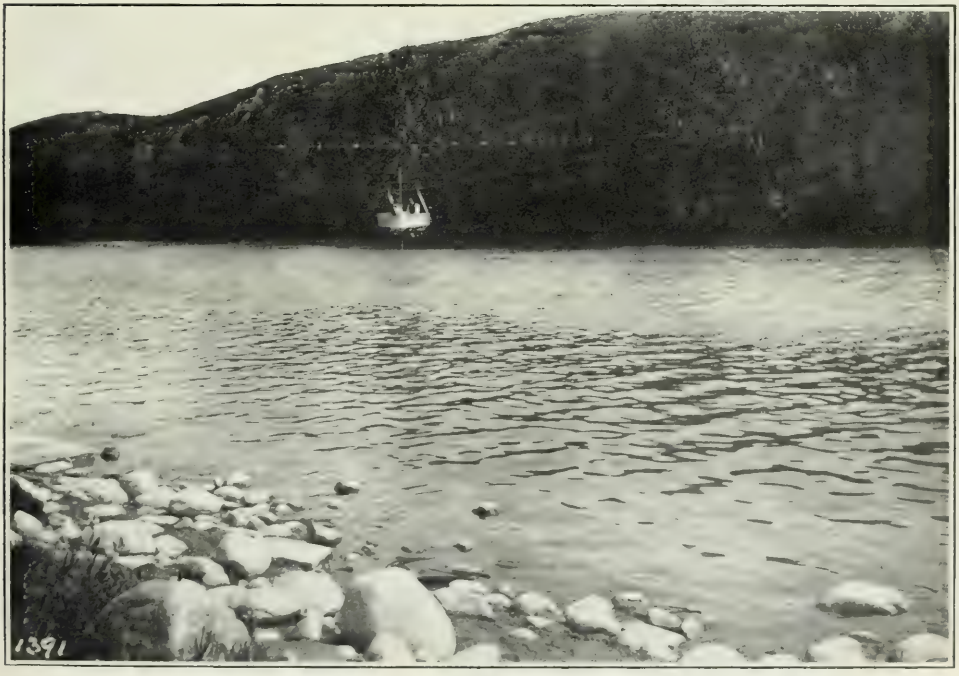
Discharge measurements are made by means of a cable-car, tagged wire and stay wire. The initial point for soundings is the zero of the tagged wire, at its fastening to the cable support, on the left bank.

The gauge is a plain staff gauge, graduated to feet and hundredths, attached to a twelve inch post sunk in the bed of the stream at the left bank. It is referred to a bench mark on a post on the left bank about 31 feet north of the cable; elevation 15.26, and to a bench mark on the hydrant on the corner of 13th Ave. E. and 6th St.; elevation 19.62. It was read daily during 1908 by John B. Ritchie, and by Mrs. I. S. White during 1909.

Discharge Measurements of Elbow River at Calgary, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
May 8	P. M. Sauder	132.5	280	0.76	1.00	212
May 15	H. R. Carscallen	137.5	369	1.49	1.655	550
June 6	P. M. Sauder	158.5	922	5.34	5.30	4925
July 21	H. R. Carscallen	139.5	370	1.43	1.67	529
July 25	do	139.0	350	1.27	1.525	445
September 3	do	138.0	303	0.95	1.115	287
October 7	P. M. Sauder	135.0	288	0.87	1.05	252
1909.						
May 7	H. R. Carscallen	133.0	278	0.83	0.755	230
May 18	P. M. Sauder	138.0	355	1.35	1.325	478
May 26	do	157.0	667	3.72	3.43	2487
June 8	J. C. Keith	141.0	467	2.09	2.11	976
June 24	do	140.0	444	1.94	1.94	860
July 2	do	140.0	425	1.82	1.82	775
July 15	do	139.0	415	1.80	1.76	749
August 7	do	138.0	359	1.37	1.40	493
August 30	do	135.0	294	0.92	0.975	270

Cable Car and Gauge on Elbow River at Calgary, Alta.



Cable and Car on Elbow River at Calgary, Alta.

Daily Gauge Height and Discharge of Elbow River, at Calgary, Alta., for 1908.

Day.	May.		June.		July.	
	Gauge. height.	Dis-charge.	Gauge. height.	Dis-charge.	Gauge. height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			3.35	2,022	2.15	882
2			5.70	5,615	2.30	1,000
3			4.40	3,435	2.30	1,000
4			5.00	4,400	2.30	1,000
5			5.60	5,440	2.30	1,000
6			5.60	5,440	2.20	920
7			4.85	4,152	2.15	882
8	1.00	212	4.15	3,062	2.10	845
9	1.50	460	3.85	2,637	2.10	845
10	1.40	410	3.70	2,440	2.10	845
11	1.30	360	3.70	2,440	2.05	810
12	1.45	435	3.50	2,195	2.00	775
13	1.55	490	3.25	1,910	2.00	775
14	1.65	550	3.00	1,640	1.90	705
15	1.70	580	3.00	1,640	1.90	705
16	1.75	610	3.00	1,640	1.80	640
17	2.35	1,040	2.70	1,340	1.80	640
18	2.15	882	2.50	1,165	1.90	705
19	2.00	775	2.50	1,165	1.90	705
20	2.05	810	2.65	1,295	1.80	640
21	2.05	810	2.70	1,340	1.80	640
22	2.00	775	2.55	1,207	1.75	610
23	1.90	705	2.50	1,165	1.70	580
24	1.90	705	2.55	1,207	1.70	580
25	1.95	740	2.80	1,435	1.60	520
26	2.05	810	2.95	1,587	1.50	460
27	2.10	845	2.95	1,587	1.50	460
28	2.10	845	2.70	1,340	1.40	410
29	2.10	845	2.40	1,080	1.40	410
30	2.05	810	2.25	960	1.30	360
31	2.50	1,165			1.30	360

DAILY Gauge Height and Discharge at Elbow River, at Calgary, Alta., for 1908.—*Con.*

Day.	August.		September.		October.		November.	
	Gauge. height.	Dis-charge.	Gauge. height.	Dis-charge.	Gauge. height.	Dis-charge.	Gauge. height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	1.30	360	1.20	310	1.10	260	1.30	360
2	1.30	360	1.20	310	1.10	260	1.20	310
3	1.30	360	1.20	310	1.10	260	1.10	260
4	1.30	360	1.20	310	1.10	260	1.00	212
5	1.30	360	1.20	310	1.10	260	1.00	212
6	1.20	310	1.20	310	1.10	260	1.00	212
7	1.20	310	1.20	310	1.10	260	1.00	212
8	1.20	310	1.20	310	1.10	260	1.00	212
9	1.20	310	1.10	260	1.10	260	1.00	212
10	1.20	310	1.10	260	1.10	260	1.00	212
11	1.25	335	1.10	260	1.10	260	1.00	212
12	1.30	360	1.10	260	1.10	260	1.00	212
13	1.30	360	1.10	260	1.00	212	.....	.....
14	1.30	360	1.10	260	1.00	212	.....	.....
15	1.30	360	1.10	260	1.00	212	.....	.....
16	1.30	360	1.10	260	1.00	212	.....	.....
17	1.20	310	1.10	260	1.00	212	.....	.....
18	1.20	310	1.10	260	1.00	212	.....	.....
19	1.20	310	1.10	260	1.00	212	.....	.....
20	1.20	310	1.10	260	1.00	212	.....	.....
21	1.10	260	1.10	260	1.00	212	.....	.....
22	1.10	260	1.10	260	1.00	212	.....	.....
23	1.10	260	1.10	260	1.00	212	.....	.....
24	1.40	410	1.15	285	1.00	212	.....	.....
25	1.40	410	1.20	310	1.00	212	.....	.....
26	1.35	385	1.20	310	1.00	212	.....	.....
27	1.30	360	1.20	310	1.05	236	.....	.....
28	1.20	310	1.20	310	1.10	260	.....	.....
29	1.20	310	1.10	260	1.20	310	.....	.....
30	1.20	310	1.10	260	1.25	335	.....	.....
31	1.20	310	.....	.....	1.30	360	.....	.....

Daily Gauge Height and Discharge of Elbow River, at Calgary, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec-ft.*	*Feet.*	*Sec.-ft*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*
1.....	0.60	220	3.34	2,370	1.89	823	1.72	695	0.97	271	0.84	240
2.....	0.90	250	3.32	2,345	1.82	770	1.65	645	0.95	265	0.84	240
3.....	1.23	391	4.10	3,320	1.88	815	1.64	638	0.96	268	0.83	238
4.....	1.42	502	2.85	1,765	2.02	927	1.57	592	0.95	265	0.82	236
5.....	1.03	293	2.87	1,789	2.19	1,076	1.62	624	0.95	265	0.82	236
6.....	0.82	236	2.71	1,601	2.30	1,180	1.59	604	0.94	262	0.82	236
7.....	0.86	243	2.45	1,325	3.27	2,282	1.40	490	0.94	262	0.81	235
8.....	0.85	241	2.10	1,095	2.77	1,670	1.43	508	0.93	259	0.80	233
9.....	0.91	253	2.06	961	2.40	1,275	1.42	502	0.93	259	0.79	232
10.....	1.06	307	2.07	969	2.35	1,227	1.35	460	0.92	256	0.79	232
11.....	1.29	425	2.37	1,246	2.25	1,132	1.33	448	0.94	262	0.79	232
12.....	1.50	550	2.66	1,546	2.06	961	1.32	442	0.93	259	0.78	231
13.....	1.66	652	2.61	1,491	2.15	1,040	1.31	436	0.92	256	0.78	231
14.....	1.49	544	2.65	1,535	2.01	918	1.29	425	0.91	253	0.77	230
15.....	1.70	680	2.59	1,470	1.95	870	1.28	419	0.92	256	0.76	230
16.....	1.56	586	2.69	1,579	1.76	725	1.25	402	0.91	253	0.79	232
17.....	1.43	508	2.75	1,647	1.69	673	1.24	397	0.90	250	0.78	231
18.....	1.32	442	2.68	1,568	1.66	652	1.23	391	0.92	256	0.78	231
19.....	1.79	748	2.51	1,385	1.65	645	1.20	375	0.92	256	0.77	230
20.....	2.04	944	2.40	1,275	1.65	645	1.19	370	0.91	253	0.77	230
21.....	2.03	935	2.29	1,171	1.58	598	1.19	370	0.91	253	0.77	230
22.....	2.06	961	2.26	1,142	1.55	580	1.17	360	0.91	253	0.76	230
23.....	2.34	1,218	2.15	1,040	1.45	520	1.16	355	0.91	253	0.76	230
24.....	2.81	1,717	1.94	862	1.43	508	1.12	335	0.90	250	0.75	229
25.....	3.06	2,020	1.91	838	1.42	502	1.09	320	0.90	250	0.75	229
26.....	3.65	2,757	2.00	910	1.44	514	1.07	311	0.91	253	0.74	228
27.....	3.28	2,295	1.87	807	1.65	645	1.04	298	0.89	248	0.73	227
28.....	3.40	2,445	1.86	800	2.66	1,546	1.05	302	0.85	241	0.73	227
29.....	3.39	2,433	1.79	748	2.42	1,295	1.02	289	0.83	238	0.73	227
30.....	3.25	2,257	1.75	717	2.01	918	0.98	274	0.85	241	0.72	226
31.....	3.01	1,957	.....	.....	1.98	894	0.97	271	.....	.....	0.72	226

MONTHLY Discharge of Elbow River at Calgary, Alta., for 1908–9.

[Drainage area, 466 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
May (8–31)	1,165	212	694.5	1.49	1.330	33,060
June	5,615	960	2,266.0	4.86	5.422	134,834
July	1,000	360	700.3	1.50	1.729	43,060
August	410	260	332.6	0.71	0.819	20,450
September	310	260	280.8	0.60	0.669	16,709
October	360	212	244.8	0.52	0.600	15,052
November (1–12)	360	212	236.5	0.50	0.223	5,629
The period						268,794
1909.						
May	2,757	220	968.0	2.070	2.386	59.520
June	3,320	717	1,377.2	2.950	3.291	81.952
July	2,282	502	929.9	1.995	2.300	57,177
August	695	271	430.6	0.920	1.061	26.476
September	271	238	255.5	0.548	0.612	15,203
October	240	226	231.4	0.490	0.565	14,228
The period						254,556

JUMPINGPOUND CREEK, NEAR JUMPING POUND P.O., ALTA.

This station was established in 1906, by J. F. Hamilton. It is located at a traffic bridge on a road diversion on section 30, township 24, range 4 west of the 5th Meridian. Mr. John Bateman, the postmaster at Jumping Pound, lives about 300 yards west of the bridge.

The channel is straight for about 600 feet above and 500 feet below the station. The current is sluggish at, and above the station, but breaks into rapids about 150 feet below the station. The right bank is composed of gravel and boulders, covered with clay, and not liable to overflow. The left bank is similar, but not so high, and liable to overflow in excessive floods. The bed of the stream is composed of course gravel and boulders. It is rough and may shift in flood stages. The stream is divided into several channels during its higher stages by a pier and pile bents supporting the bridge.

During higher stages of the stream, discharge measurements are made from the down stream side of the bridge. The initial point for soundings is the west side of the right abutment. Distances are marked on the railing of the bridge, at every five feet from the initial point. At low water stage of the stream discharge measurements are made at wading sections, either above or below the bridge.

The gauge, which is a plain staff, graduated to feet and hundredths is attached vertically to the downstream face of the first pile bent west of the main truss of the bridge. The gauge is referred to a bench mark on the north end of the cap of the right pile bent; elevation 10.90 above the zero of the gauge.

The gauge was read once each day by John Bateman.

Discharge Measurements of Jumpingpound Creek near Jumping Pound, P.O., Alta., in 1906–8–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Discharge.
1906.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 15	J. F. Hamilton	103	289	0.60	2.70	162
June 16*	....do				2.75	189
1908.						
May 6	P. M. Sauder	99.3	250	0.22	2.30	55
May 6*	....do	49.4	65	0.88	2.30	57
July 23*	H. R. Carscallen	57.0	74	0.96	2.36	71
September 4	....do	89.0	187	0.17	2.05	32
1909.						
June 28	J. C. Keith	95.0	212	0.53	2.48	113
July 20	....do	87.0	195	0.33	2.24	64
September 7*	....do	28.5	34	0.70	1.96	24

* Measurements taken at wading sections.

Daily Gauge Height and Discharge of Jumpingpound Creek near Jumping Pound, P.O., Alta., for 1908.

Day.	April.		May.		June	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.40		5.00	751
2			2.30		5.30	829
3			2.30		4.70	673
4			2.30		5.00	751
5			2.30		5.30	829
6			2.30		5.00	751
7			2.30		4.70	673
8			2.50		4.00	491
9			2.80		3.90	465
10			2.70		3.60	387
11			2.60		3.50	361
12			2.50		3.50	361
13			2.70		3.40	336
14			2.80		3.40	336
15			3.00		3.30	311
16			3.30		3.30	311
17			3.30		3.20	286
18			3.10		3.20	286
19	2.50		3.20		3.10	261
20	2.45		3.30		3.30	311
21	2.40		3.30		3.30	311
22	2.40		3.20		3.20	286
23	2.35		3.20		3.20	286
24	2.30		3.10		3.10	261
25	2.30		3.10		3.00	236
26	2.30		3.20		3.00	236
27	2.30		3.30		3.30	311
28	2.40		3.20		3.20	286
29	2.40		3.20		3.00	236
30	2.40		3.50		3.00	236
31			3.70			

DAILY Gauge Height and Discharge of Jumpingpound Creek, near Jumping Pound, P.O., Alta., for 1908.—*Con.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.80	186	2.20	57	2.20	57	2.00	27
2	2.70	162	2.20	57	2.10	40	2.10	40
3	2.60	139	2.20	57	2.10	40	2.10	40
4	2.60	139	2.20	57	2.10	40	2.10	40
5	2.60	139	2.10	40	2.00	27	2.10	40
6	2.60	139	2.10	40	2.00	27	2.10	40
7	2.60	139	2.10	40	2.00	27	2.10	40
8	2.50	117	2.10	40	2.00	27	2.10	40
9	2.50	117	2.10	40	2.00	27	2.10	40
10	2.50	117	2.10	40	2.00	27	2.10	40
11	2.40	96	2.20	57	2.00	27	2.10	40
12	2.40	96	2.30	76	2.00	27	2.10	40
13	2.40	96	2.30	76	2.00	27	2.10	40
14	2.40	96	2.20	57	2.00	27	2.10	40
15	2.40	96	2.20	57	2.00	27	2.10	40
16	2.50	117	2.20	57	2.00	27	2.10	40
17	2.50	117	2.20	57	1.90	20	2.10	40
18	2.40	96	2.10	40	1.90	20	2.10	40
19	2.40	96	2.10	40	1.90	20	2.10	40
20	2.40	96	2.10	40	1.90	20	2.10	40
21	2.40	96	2.10	40	1.90	20	2.10	40
22	2.40	96	2.00	27	1.90	20	2.10	40
23	2.30	76	2.00	27	1.90	20	2.10	40
24	2.30	76	2.10	40	1.90	20	2.10	40
25	2.30	76	2.20	57	2.00	27	2.10	40
26	2.20	57	2.20	57	2.10	40	2.10	40
27	2.20	57	2.20	57	2.10	40	.....	.....
28	2.20	57	2.20	57	2.10	40	.....	.....
29	2.20	57	2.10	40	2.00	27	.....	.....
30	2.20	57	2.20	57	2.00	27	.....	.....
31	2.20	57	2.20	57	.....	.....	.....	.....

NOTE.—Rating table does not apply to gauge heights previous to June 1st.

DAILY Gauge Height and Discharge of Jumpingpound Creek near Jumping Pound, P.O., Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec-ft.*	*Feet.*	*Sec.-ft*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*	*Feet.*	*Sec-ft.*
1.....	2.60	139	3.30	311	2.30	76	2.50	117	2.00	27	1.90	20
2.....	2.60	139	3.20	286	2.30	76	2.40	96	2.00	27	1.90	20
3.....	2.70	162	3.10	261	2.30	76	2.40	96	2.00	27	1.90	20
4.....	2.70	162	3.10	261	2.30	76	2.40	96	2.00	27	1.90	20
5.....	2.60	139	3.20	286	2.30	76	2.40	96	2.00	27	1.90	20
6.....	2.50	117	3.20	286	2.40	96	2.40	96	2.00	27	1.90	20
7.....	2.50	117	3.20	286	3.00	236	2.30	76	2.00	27	1.90	20
8.....	2.40	96	3.10	261	2.80	186	2.30	76	2.00	27	1.90	20
9.....	2.40	96	3.10	261	2.70	162	2.30	76	2.00	27	1.90	20
10.....	2.30	76	3.00	236	2.70	162	2.30	76	2.00	27	1.90	20
11.....	2.40	96	3.00	236	2.60	139	2.40	96	2.00	27	1.90	20
12.....	2.60	139	2.90	211	2.60	139	2.30	76	2.00	27	1.90	20
13.....	2.80	186	2.90	211	2.70	162	2.30	76	2.00	27	1.90	20
14.....	2.80	186	2.80	186	2.70	162	2.20	57	2.00	27	1.90	20
15.....	2.70	162	2.80	186	2.60	139	2.20	57	2.00	27	1.90	20
16.....	2.70	162	2.70	162	2.50	117	2 20	57	2.00	27	1.90	20
17.....	2.80	186	2.70	162	2.50	117	2.20	57	2.00	27	1.90	20
18.....	2.80	186	2.60	139	2.40	96	2.20	57	2.00	27	1.90	20
19.....	2.60	139	2.60	139	2.40	96	2.20	57	2.00	27	1.90	20
20.....	2.90	211	2.50	117	2.30	76	2.10	40	2.00	27	1.90	20
21.....	3.10	261	2.50	117	2.30	76	2.10	40	1.90	20	1.90	20
22.....	3.30	311	2.50	117	2.30	76	2.10	40	1.90	20	1.90	20
23.....	3.30	311	2.50	117	2.30	76	2.10	40	1.90	20	1.90	20
24.....	4.00	491	2.60	139	2.20	57	2.10	40	1.90	20	1.90	20
25.....	4.00	491	2.60	139	2.20	57	2.10	40	1.90	20	1.90	20
26.....	3.80	439	2.60	139	2.60	139	2.10	40	1.90	20	1.90	20
27.....	3.60	387	2.50	117	2.60	139	2.10	40	1.90	20	1.90	20
28.....	3.50	361	2.40	96	2.90	211	2.00	27	1.90	20	1.90	20
29.....	3.40	336	2.40	96	2.80	186	2.00	27	1.90	20	1.90	20
30.....	3.30	311	2.40	96	2.70	162	2.00	27	1.90	20	1.90	20
31.....	3.30	311	.....	.....	2.50	117	2.00	27	.....	.....	1.90	20

MONTHLY Discharge of Jumpingpound Creek near Jumping Pound, P.O., Alta., for 1908-9.

[Drainage area, 178 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
June	829	236	414.8	2.330	2.600	24,684
July	186	57	101.9	0.572	0.659	6,264
August	57	27	49.7	0.279	0.322	3,056
September	57	20	28.7	0.161	0.180	1,710
October (1-26)	40	27	39.5	0.222	0.215	2,037
The period						37,751
1909.						
May	491	76	222.8	1.251	1.442	13,698
June	311	96	188.6	1.059	1.182	11,221
July	236	57	121.3	0.681	0.785	7,459
August	117	27	61.9	0.347	0.400	3,806
September	27	20	24.7	0.138	0.154	1,468
October	20	20	20.0	0.112	0.129	1,230
The period						38,882

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Nose Creek, near Calgary, Alta., in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
July 19	J. C. Keith	N. W. 13-24-1-5	19	15.8	23.4
September 2	do	do	9	4.0	5.8
September 18	do	do	9.3	4.2	5.7

MISCELLANEOUS Discharge Measurements of Bow River, in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
September 8	J. C. Keith	Road allowance E. of sec. 34-25-4-5	305	813	4,017
September 10	do	Morley bridge on Stony Indian Reserve	178.5	966	3,390
October 20	P. M. Sauder	Intake S.A.L.Co., S.E. 31-21-25-4	336	887	2,874

MISCELLANEOUS Discharge Measurements of tributaries of Bow River, by J. C. Keith, in 1909.

Date.	Stream.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq.-ft.*	*Sec.-ft.*
September 9	Bighill Creek	Sec. 10-26-4-5	10	5.75	6.4
September 9	Horse Creek	Sec. 8-26-4-5			Dry.
September 9	Grand Valley Creek	Sec. 24-26-5-5	7.8	3.04	0.80
September 9	Beaupre Creek	Sec. 15-26-5-5			Dry.
September 9	Spencer Creek	Sec. 17-26-5-5	8.	2.17	1.88
September 9	Ghost River	Sec. 24-26-6-5	70.	153.	303.
September 9	Jacob Creek	On Stony Indian Reserve, near mouth			Dry.
September 10	Cripple Creek	On Stony Indian Reserve, near mouth	4	1.29	0.73
September 10	Oldfort Creek	On Stony Indian Reserve, near mouth	11.6	6.06	10.57

FISH CREEK NEAR PRIDDIS, ALTA.

This station was established May 13th, 1907, by P. M. Sauder. It is on the south-west quarter of section 26, township 22, range 3 west of the 5th meridian, near John L. Bremner's buildings, and about one mile from Priddis.

A plain staff gauge, graduated to feet and hundredths, is placed vertically at the left bank, about 200 yards north of Mr. Bremner's house. It is read once each day by Mr. Bremner. Bench mark No. 1 is a block of wood fastened on the north east corner of a frame stable near the road; elevation 9.26. Bench mark No. 2 is two spikes driven about two feet from the ground, in a telephone post 259 feet west of the gauge; elevation 8.65 above the zero of the gauge.

The channel is straight for 100 feet above the station and for 200 feet below the station. The left bank is high, and will not overflow. The right bank is low, covered with brush and timber, and is liable to overflow in extreme high water. The bed is composed of gravel, but not liable to shift. The current is slugglsh in extreme low water stage of the stream.

Measurements are made by wading at or near the gauge, during low water stages of the stream, and high water stages are computed from slope measurements by the use of Kutter's formula. It is proposed to establish a cable station at this point for high water measurements.

Discharge Measurements of Fish Creek near Priddis, Alta., in 1907-8-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1907.						
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
May 13	P. M. Sauder	38.0	46	0.87	1.00	40.3
October 18	I. J. Walmsley	35.0	23	1.06	0.85	24.4
1908.						
May 20	P. M. Sauder	53.0	112	2.54	2.395	285
July 17	H. R. Carscallen	47.5	81	1.74	1.85	140
July 27	do	37.0	34	0.59	0.76	20.2
August 31	do	36.0	37	0.63	0.785	23.2
September 30	do	38.0	41	0.70	0.88	29.1
November 6	P. M. Sauder	35.5	31	0.36	0.575	11.12
1909.						
June 21	J. C. Keith	39.5	50	0.97	1.10	48.7
July 31	do	38.0	47	1.00	1.05	46.6
August 24	do	31.5	27	0.29	0.42	7.74
September 20	do	15.0	8	0.97	0.43	7.79
October 24	P. M. Sauder	30.0	23	0.33	0.44	7.72

Daily Gauge Height and Discharge of Fish Creek, near Priddis, Alta., for 1908.

Day.	June.		July.		August.		September.		October.	
	Gauge. height.	Discharge.	Gauge. height.	Discharge.	Gauge. height.	Discharge.	Gauge. height.	Discharge.	Gauge. height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			1.60	104	0.70	17	0.70	17	0.90	31
2			1.50	91	0.80	23	0.60	12	1.00	40
3			1.50	91	0.80	23	0.60	12	1.10	49
4			1.40	79	0.70	17	0.50	9	0.90	31
5			1.40	79	0.60	12	0.50	9	0.90	31
6			1.30	68	0.60	12	0.40	6	0.90	31
7			1.30	68	0.60	12	0.40	6	0.80	23
8			1.20	58	0.60	12	0.40	6	0.80	23
9			1.10	49	0.60	12	0.40	6	0.70	17
10			1.10	49	0.60	12	0.50	9	0.70	17
11	3.40	496	1.10	49	0.70	17	0.40	6	0.70	17
12	3.00	382	1.00	40	1.00	40	0.40	6	0.70	17
13	2.60	284	1.00	40	1.00	40	0.40	6	0.70	17
14	2.50	262	1.00	40	0.90	31	0.40	6	0.60	12
15	2.40	240	1.10	49	0.80	23	0.40	6	0.70	17
16	2.30	220	1.30	68	0.70	17	0.40	6	0.70	17
17	2.20	200	1.50	91	0.70	17	0.40	6	0.70	17
18	2.00	165	1.60	104	0.70	17	0.40	6	0.70	17
19	2.00	165	1.40	79	0.60	12	0.50	9	0.60	12
20	2.20	200	1.30	68	0.50	9	0.50	9	0.70	17
21	3.00	382	1.10	49	0.50	9	0.40	6	0.90	31
22	2.70	307	1.10	49	0.50	9	0.40	6	0.90	31
23	2.30	220	0.90	31	0.50	9	0.40	6	0.70	17
24	2.30	220	0.90	31	0.60	12	0.50	9	0.70	17
25	1.90	148	0.80	23	0.70	17	0.60	12	0.80	23
26	1.70	118	0.80	23	0.70	17	0.60	12	0.80	23
27	2.00	165	0.80	23	0.70	17	0.60	12	0.70	17
28	1.90	148	0.70	17	0.50	9	0.70	17	0.70	17
29	1.80	132	0.80	23	0.50	9	0.80	23	0.70	17
30	1.70	118	0.70	17	0.60	12	0.80	23	0.80	23
31			0.60	12	0.80	23			0.80	23

Measurement by wading, Fish Creek, near Priddis, Alta.

Daily Gauge Height and Discharge of Fish Creek, near Priddis, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge neight	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1.....	.....	.....	1.50	91	0.90	31	1.05	44.5	0.45	7.5	0.40	6.0
2.....	.....	.....	1.50	91	0.80	23	1.00	40	0.45	7.5	0.40	6.0
3.....	3.40	496	1.40	79	0.80	23	0.90	31	0.45	7.5	0.40	6.0
4.....	2.40	240	1.30	68	0.80	23	0.90	31	0.50	9.0	0.40	6.0
5.....	1.60	104	1.40	79	1.20	58	0.80	23	0.50	9.0	0.40	6.0
6.....	1.40	79	1.60	104	1.50	91	0.90	31	0.50	9.0	0.40	6.0
7.....	1.30	68	1.50	91	2.10	182	0.90	31	0.45	7.5	0.40	6.0
8.....	1.20	58	1.40	79	2.00	165	0.80	23	0.45	7.5	0.40	6.0
9.....	1.30	68	1.30	68	1.70	118	0.70	17	0.40	6.0	0.40	6.0
10.....	1.30	68	1.20	58	1.50	91	0.70	17	0.40	6.0	0.40	6.0
11.....	1.50	91	1.20	58	1.40	79	0.70	17	0.35	5.0	0.40	6.0
12.....	1.60	104	1.10	49	1.60	104	0.70	17	0.35	5.0	0.40	6.0
13.....	3.00	382	1.10	49	1.40	79	0.60	12	0.35	5.0	0.40	6.0
14.....	2.80	331	1.10	49	2.00	165	0.60	12	0.35	5.0	0.40	6.0
15.....	3.00	382	1.10	49	1.60	104	0.60	12	0.35	5.0	0.40	6.0
16.....	2.40	240	1.10	49	1.40	79	0.50	9	0.35	5.0	0.40	6.0
17.....	2.20	200	1.10	49	1.40	79	0.50	9	0.35	5.0	0.40	6.0
18.....	2.00	165	1.00	40	1.20	58	0.50	9	0.40	6.0	0.40	6.0
19.....	2.30	220	1.00	40	1.10	49	0.50	9	0.40	6.0	0.40	6.0
20.....	2.80	331	1.00	40	1.00	40	0.50	9	0.45	7.5	0.40	6.0
21.....	3.00	382	1.10	49	1.00	40	0.50	9	0.45	7.5	0.40	6.0
22.....	3.60	556	1.10	49	1.00	40	0.45	7.5	0.45	7.5	0.40	6.0
23.....	3.30	466	1.00	40	0.90	31	0.45	7.5	0.50	9.0	0.45	7.5
24.....	3.30	466	1.00	40	0.90	31	0.45	7.5	0.45	7.5	0.45	7.5
25.....	3.20	437	1.30	68	0.90	31	0.45	7.5	0.45	7.5	0.45	7.5
26.....	2.60	284	1.30	68	0.80	23	0.45	7.5	0.40	6.0	0.50	9.0
27.....	2.20	200	1.10	49	1.00	40	0.45	7.5	0.40	6.0	0.66	15.0
28.....	2.20	200	1.10	49	1.50	91	0.50	9	0.40	6.0	0.60	12.0
29.....	1.90	148	1.00	40	1.50	91	0.45	7.5	0.40	6.0	0.50	9.0
30.....	1.70	118	0.90	31	1.30	68	0.45	7.5	0.40	6.0	0.40	6.0
31.....	1.60	104	.....	.....	1.10	49	0.45	7.5	.....	.....	0.40	6.0

Monthly Discharge of Fish Creek, near Priddis, Alta., for 1908-9.

(Drainage area, 105 square miles)

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
1908.						
June (11–30).....	496	118	228.6	2.177	1.619	9,068
July.....	104	12	53.6	0.511	0.589	3,296
August.....	40	9	16.7	0.159	0.183	1,027
September.....	23	6	9.5	0.090	0.100	563
October.....	49	12	22.3	0.212	0.244	1,372
The period.....	.....	.....	.....	.....	.....	15,326
1909.						
May (3–31).....	556	58	241.0	2.295	2.475	13,860
June.....	104	31	58.8	0.559	0.624	3,497
July.....	182	23	70.2	0.668	0.770	4,316
August.....	44.5	7.5	15.8	0.150	0.173	970
September.....	9.0	5.0	6.7	0.063	0.070	397
October.....	15.0	6.0	6.8	0.065	0.075	419
The period.....	.....	.....	.....	.....	.....	23,459

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of North Branch of Fish Creek, near Priddis, Alta., in 1908.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
July 17	H. R. Carscallen	1,000 ft. from mouth	32.0	79.5	73.3
July 27	do	do	25.5	54.5	9.1
August 31	do	do	25.5	58.0	14.5
September 30	do	do	19.7	16.8	18.4

Miscellaneous Discharge Measurement of Pine Creek in section 11, tp. 22, rge. 1 west of the 5th mer., in 1909.

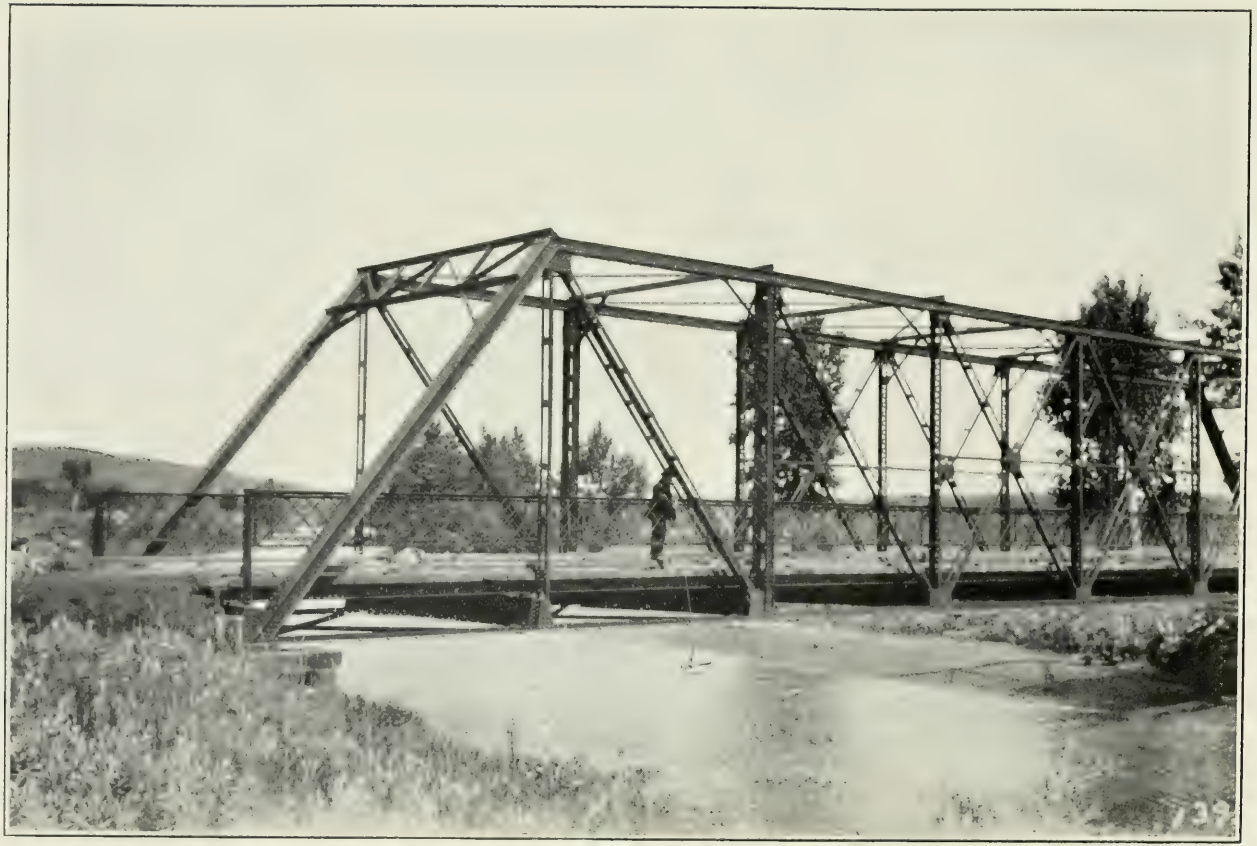
Date.	Hydrographer.	Width.	Area of section.	Discharge.
		Feet.	*Sq. ft.*	*Sec.-ft.*
June 14	J. C. Keith	10.5	3.2	4.0

North Branch of Sheep River at Millarville,. Alta

This station was established May 22, 1908, by P. M. Sauder. The gauge which is a plain staff, graduated to feet and hundredths, is fastened to the east end of a crib work about 100 yards from Malcolm T. Millar's house on the southwest quarter of section 12, Township 21, Range 3 west of the 5th Meridian. It is referred to a bench mark on the southwest corner of Mr. Millar's house elevation 13.89 above the zero of the gauge. Discharge measurements are made at a wading section 50 yards downstream from the gauge at low water. During high water and flood stages of the stream, discharge measurements are made from a steel highway bridge about one mile below the gauge, on the road allowance east of section 12. The initial point for soundings is the outer edge of the bed plate on the downstream side of the north end of the bridge. Distances from the initial point are marked at every five feet, on the bottom cord.

The stream is subject to sudden rises and at high stages the current is swift. During these periods the channel which is composed of gravel is liable to shift.

The gauge was read once each day by Malcolm T. Millar.



Bridge Station on North Fork of Sheep River, near Millarville, Alta.

DISCHARGE Measurements of North Branch of Sheep River, at Millarville, Alta., 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec. ft.*
May 22	H. R. Carscallen	99.5	260	1.62	3.90	420
July 17	do	66.5	212	0.67	2.68	141
August 29*	do	38.5	20.0	0.68	2.03	13.6
September 30*	do	32.0	22.7	1.11	2.18	25.1
November 7*	P. M. Sauder	26.2	22.7	1.03	2.16	23.3
1909.						
May 14	P. M. Sauder	97.0	280	1.32	3.06	371
June 19	J. C. Keith	62.0	205	0.71	2.40	146
July 14	do	67.0	234	1.26	2.94	295
July 31	do	61.0	205	0.68	2.37	139.5
August 24*	do	22.0	16.7	1.12	1.80	18.8
September 21*	do	21.0	12.9	0.83	1.73	10.7
October 23*	P. M. Sauder	19.0	10.7	0.63	1.67	6.8

*Measurements taken at wading sections.

DAILY Gauge Height and Discharge of North Branch of Sheep River, at Millarville, Alta., for 1909.

Day.	April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge heighht.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.50	206	2.40	180	3.30	438
2	2.50	206	2.80	290	3.60	543
3	2.50	206	3.00	351	3.20	402
4	2.60	233	3.10	384	3.10	369
5	2.60	233	3.10	384	3.10	367
6	2.60	233	2.60	233	3.00	334
7	2.60	233	2.50	206	2.90	300
8	2.70	261	2.30	154	2.70	243
9	2.70	261	2.40	180	2.70	241
10	2.70	261	2.60	233	2.70	239
11	2.70	261	2.70	261	2.70	238
12	2.70	261	2.60	233	2.70	237
13	2.70	261	2.50	206	2.70	235
14	2.50	206	3.20	418	2.60	206
15	2.50	206	3.40	485	2.50	179
16	2.30	154	3.10	383	2.50	177
17	2.50	206	3.00	351	2.50	176
18	2.50	206	3.00	350	2.50	174
19	2.50	206	3.30	448	2.50	173
20	2.50	206	3.50	518	2.50	173
21	2.50	206	3.50	517	2.50	173
22	2.50	206	4.00	704	2.50	173
23	2.60	233	3.70	591	2.50	173
24	2.70	261	4.30	815	2.40	146
25	2.70	261	4.10	739	2.50	173
26	2.60	233	3.90	663	2.50	173
27	2.70	261	3.60	551	2.50	173
28	2.60	233	3.60	550	2.30	122
29	2.60	233	3.60	549	2.30	122
30	2.40	180	3.50	510	2.30	122
31			3.50	508		

DAILY Gauge Height and Discharge of North Branch of Sheep River, at Millarville, Alta., for 1909—*Con.*

Day.	July.		August.		September.		October.	
	Gauge. Height.	Discharge.	Gauge. Height.	Discharge.	Gauge. Height.	Discharge.	Gauge. Height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.30	122	2.30	122	1.80	19	1.70	9
2	2.30	122	2.30	122	1.80	19	1.70	9
3	2.30	122	2.30	122	1.80	19	1.70	9
4	2.30	122	2.30	122	1.80	19	1.70	9
5	2.90	282	2.30	122	1.80	19	1.70	9
6	3.50	478	2.30	122	1.80	19	1.70	9
7	3.10	344	2.30	122	1.70	9	1.70	9
8	3.10	344	2.20	99	1.70	9	1.70	9
9	3.10	344	2.20	99	1.70	9	1.70	9
10	2.90	282	2.20	99	1.70	9	1.70	9
11	2.70	227	2.20	99	1.70	9	1.70	9
12	2.70	227	2.10	77	1.70	9	1.70	9
13	3.00	312	2.10	77	1.70	9	1.70	9
14	2.90	282	2.10	77	1.70	9	1.70	9
15	2.80	254	2.10	77	1.70	9	1.70	9
16	2.70	227	2.10	77	1.70	9	1.70	9
17	2.60	200	2.10	77	1.70	9	1.70	9
18	2.60	200	2.10	77	1.70	9	1.70	9
19	2.60	200	2.10	77	1.70	9	1.70	9
20	2.50	173	2.00	56	1.70	9	1.70	9
21	2.50	173	2.00	56	1.70	9	1.70	9
22	2.50	173	1.90	36	1.70	9	1.70	9
23	2.50	173	1.90	36	1.70	9	1.70	9
24	2.40	146	1.80	19	1.70	9	1.70	9
25	2.30	122	1.80	19	1.70	9	1.70	9
26	2.40	146	1.80	19	1.70	9	1.70	9
27	2.40	146	1.80	19	1.70	9	1.70	9
28	3.00	312	1.80	19	1.70	9	1.70	9
29	2.60	200	1.80	19	1.70	9	1.70	9
30	2.60	200	1.80	19	1.70	9	1.70	9
31	2.40	146	1.80	19	.....	.....	1.70	9

MONTHLY Discharge of North Branch of Sheep River, at Millarville, Alta., for 1909.

[Drainage area, 192 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
April	261	154	227.1	1.182	1.319	13,513
May	815	154	417.6	2.175	2.507	25,677
June	543	122	233.1	1.214	1.354	13,870
July	478	122	219.4	1.143	1.318	13,490
August	122	19	71.0	0.370	0.427	4,366
September	19	9	11.0	0.057	0.064	654
October	9	9	9.0	0.046	.053	553
The period	.....	.....	.....	.....	.....	72,123

South Branch of Sheep River, near Black Diamond, Alta.

This station was established May 23, 1908, by P. M. Sauder. It is located at the steel highway bridge on the road allowance between sections 8 and 17, Township 20, Range 2 west of the 5th Meridian. It is one-half mile from Black Diamond P.O.

The gauge which is of the standard chain type, is fastened to the floor of the bridge on the downstream side, about midway between the west abutment and the centre pier. Bench mark, No. 1, is two nail heads on the north face of the west abutment; elevation 9.37 above the zero of the gauge. Bench mark, No. 2, is a block of wood nailed to the north face of the centre pier; elevation 7.67. The chain used at first, was not satisfactory and was replaced by a chain of better quality on July 13, 1909. Since then the results have been more satisfactory.

The channel is straight for about 300 feet above the station, then swings sharply to the left. It is straight for about 200 feet below the station, then turns gradually to the right. Both banks are composed of gravel. The right bank is low, partly covered with brush, and overflows in higher stages of the stream. The left bank is high and can not overflow. The bed is composed of coarse gravel. It is permanent in low water stage of the stream, but a gravel bar at the right bank, which is covered during high water stages is liable to shift. The river has considerable fall and the current is swift.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the outer edge of the bed plate on the west end of the bridge. Distances from the initial point are marked every five feet, on the bottom cord of the bridge.

The gauge was read once each day by Herbert Arnold, merchant at Black Diamond.

Discharge Measurements of South Branch of Sheep River, near Black Diamond, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet*	*Sec.-ft.*
May 23	H. R. Carscallen	79.5	137	3.71	.....	509
July 16	....do	94.0	138	2.56	.....	352
July 28	....do	76.0	97	1.84	.....	179
August 29	....do	74.5	80	1.47	.....	118
September 29	....do	75.0	80	1.45	.....	117
1909.						
May 15	P. M. Sauder	82.5	131	2.52	.....	329
June 19	J. C. Keith	95.5	198	4.58	.....	905
July 13	....do	93.5	175	3.06	1.62	538
July 30	....do	95.0	180	3.79	1.81	682
August 23*	....do	72.5	86	1.72	0.71	148
September 21*	....do	67.5	75	1.47	0.60	111
October 23*	P. M. Sauder	65.0	53	1.26	0.47	67

*Measurements taken at wading sections.

DAILY Gauge Height and Discharge of South Branch of Sheep River, near Black Diamond Alta., for 1909.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge heighht.	Discharge.	Gauge. Height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			1.50	465	0.60	111	0.50	78
2			1.40	413	0.60	111	0.50	78
3			1.40	413	0.65	127	0.60	111
4			1.30	367	0.65	127	0.50	78
5			1.30	367	0.65	127	0.50	78
6			1.20	325	0.65	127	0.50	78
7			1.10	287	0.60	111	0.50	78
8			1.00	249	0.60	111	0.50	78
9			1.00	249	0.60	111	0.50	78
10			1.00	249	0.60	111	0.60	111
11			1.00	249	0.60	111	0.50	78
12			1.00	249	0.65	127	0.50	78
13	1.60	523	1.00	249	0.60	111	0.50	78
14	1.60	523	0.90	213	0.60	111	0.50	78
15	1.40	413	0.90	213	0.65	127	0.50	78
16	1.50	465	0.90	213	0.65	127	0.50	78
17	1.50	465	0.80	178	0.60	111	0.50	78
18	1.40	413	0.80	178	0.65	127	0.50	78
19	1.30	367	0.80	178	0.65	127	0.50	78
20	1.50	465	0.80	178	0.60	111	0.50	78
21	1.40	413	0.80	178	0.60	111	0.45	63
22	1.30	367	0.70	144	0.65	127	0.45	63
23	1.20	325	0.70	144	0.65	127	0.45	63
24	1.30	367	0.70	144	0.65	127	0.45	63
25	1.30	367	0.70	144	0.60	111	0.50	78
26	1.40	413	0.70	144	0.60	111	0.50	78
27	2.50	1,260	0.70	144	0.60	111	0.50	78
28	2.70	1,428	0.70	144	0.55	94	0.50	78
29	2.00	840	0.70	144	0.55	94	0.50	78
30	2.00	840	0.70	144	0.55	94	0.50	78
31	1.60	523	0.60	111			0.50	78

MONTHLY Discharge of South Branch of Sheep River, near Black Diamond, Alta., for 1909.

[Drainage area, 232 square miles.]

	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet
July (13-31)	1,428	325	567.2	2.445	1.728	21,376
August	465	111	228.0	0.982	1.132	14,017
September	127	94	115.7	0.498	0.556	6,884
October	111	63	78.2	0.337	0.388	4,808
The period						47,085

SHEEP RIVER NEAR OKOTOKS, ALTA.

This station was established in 1906, by J. F. Hamilton. It is located at the Canadian Pacific Railway Bridge, about one mile from Okotoks, on the west boundary of Section 22, Township 20, Range 29 west of the 4th Meridian.

A plain staff gauge, graduated to feet and tenths, was at first attached to the north face of the north pier. Later, owing to the shifting of the main channel of the stream to the right, another gauge, graduated to feet and hundredths, was attached to the north face of the south pier. Both gauges are referred to a bench mark on the top of the downstream end of the north pier; elevation 11.48. The railway company are rebuilding this bridge and arrangements are being made to have a gauge attached to the centre pier of the new bridge.

The channel is straight for about 700 feet above and 300 feet below the station. The current is swift and the channel which is composed of coarse gravel, shifts considerably. Short piles, the remains of an old pier, a few feet upstream from the station, affect the accuracy of discharge measurements. The right bank is low and composed of gravel. It overflows at high stages and shifts. The left bank is low and composed of gravel and sand. It also overflows at high water and shifts.

Discharge measurements were made from the downstream side of the bridge. The initial point for soundings is 155 feet from the north end of the trestle approach to the bridge. Distances from the initial point are marked at intervals of five feet along the downstream side of the bridge.

Sheep River falls rapidly. The banks and bed of the stream are composed of gravel and clay. The current is swift and during high water the channel shifts almost continuously. It is impossible to locate a suitable gauging station for high water stages and the daily discharges at those stages, are approximate. During low water stage the channel seldom shifts and the results are fairly good. During the latter period, discharge measurements are made at a wading section about 200 yards downstream from the bridge.

The gauge was read once each day by Wm. P. Henderson, who lives about quarter of a mile from the bridge.

DISCHARGE Measurements of Sheep River, near Okotoks, Alta., in 1906–7–8–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1906.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 29	J. F. Hamilton	177.0	398	4.53	3.35	1,806
November 6*	do	111.0	103	0.84	1.35	86
1907.						
May 11	I. J. Walmsley	75.0	216	2.83	2.40	611
October 8	do	75.0	194	1.71	2.12	331
1908.						
May 25	P. M. Sauder	114.0	292	3.58	2.86	1,047
May 29	H. R. Carscallen	117.5	306	3.98	3.02	1,216
July 15	do	123.0	566	0.90	2.25	507
July 29	do	123.0	520	0.50	1.97	258
August 28	do	123.0	492	0.32	1.78	155
September 8	do	116.0	471	0.23	1.64	110
September 29	do	116.5	481	0.27	1.70	132
1909.						
May 7	H. C. Ritchie	122.0	514	0.84	1.27	432
June 15	J. C. Keith	122.0	728	3.13	3.52	2,283
July 10	do	122.0	438	2.93	3.45	1,274
July 24	do	118.5	307	1.28	2.48	394
August 23	do	108.5	222	0.96	2.00	214
September 16*	do	52.0	60.5	1.88	1.75	114
October 22*	P. M. Sauder	70.0	74	1.11	1.64	82

*Measurements taken at wading sections.

DAILY Gauge Height and Discharge of Sheep River, near Okotoks, Alta., for 1908.

Day.	April.		May.		June.	
	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.70	130	7.00	6,785
2	.....	.....	1.80	160	7.60	7,685
3	.....	.....	1.90	210	4.90	3,690
4	.....	.....	1.75	145	6.20	5,585
5	2.70	880	1.75	145	5.40	4,415
6	2.00	275	1.85	185	5.70	4,850
7	1.90	210	1.95	242	4.80	3,545
8	1.90	210	2.10	345	4.30	2,825
9	1.90	210	2.50	685	4.00	2,410
10	1.80	160	2.30	505	3.80	2,150
11	1.80	160	2.50	685	3.80	2,150
12	2.00	275	2.45	640	3.60	1,900
13	1.90	210	2.60	780	3.40	1,650
14	1.80	160	2.70	880	3.40	1,650
15	1.50	80	2.90	1,085	3.25	1,477
16	1.60	100	3.70	2,025	3.20	1,420
17	1,60	100	3.50	1,775	3.00	1,190
18	1.60	100	3.10	1,305	2.90	1,085
19	1.60	100	2.90	1,085	2.90	1,085
20	1.80	160	3.40	1,650	3.20	1,420
21	1.80	160	3.10	1,305	3.60	1,900
22	1.60	100	2.90	1,085	3.40	1,650
23	1.60	100	2.90	1,085	3.20	1,420
24	1.60	100	2.80	980	3.00	1,190
25	1.60	100	2.80	980	3.20	1,420
26	1.60	100	2.90	1,085	3.10	1,305
27	1.60	100	3.10	1,305	3.10	1,305
28	1.60	100	3.10	1,305	2.80	980
29	1.65	115	3.00	1,190	2.70	880
30	1.75	145	3.40	1,650	2.70	880
31	.....	.....	4.70	3,400	.....	.....

DAILY Gauge Height and Discharge of Sheep River, near Okotoks, Alta., for 1908—*Con.*.

Day.	July.		August.		September.		October.	
	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.60	780	1.90	210	1.80	160	1.80	160
2	2.40	595	1.90	210	1.75	145	2.00	275
3	2.60	780	1.90	210	1.70	130	2.00	275
4	2.50	685	1.90	210	1.70	130	1.90	210
5	2.40	595	1.90	210	1.70	130	1.90	210
6	2.30	505	1.90	210	1.70	130	1.90	210
7	2.30	505	1.85	185	1.70	130	1.90	210
8	2.30	505	1.85	185	1.70	130	1.90	210
9	2.30	505	1.85	185	1.70	130	1.90	210
10	2.30	505	1.85	185	1.65	115	1.90	210
11	2.30	505	1.90	210	1.65	115	1.90	210
12	2.15	385	1.95	242	1.65	115	1.90	210
13	2.20	425	1.95	242	1.65	115	1.90	210
14	2.20	425	1.90	210	1.65	115	1.90	210
15	2.20	425	1.90	210	1.65	115	1.85	185
16	2.30	505	1.90	210	1.65	115	1.85	185
17	2.30	505	1.85	185	1.62	106	1.85	185
18	2.30	505	1.85	185	1.62	106	1.85	185
19	2.30	505	1.80	160	1.62	106	1.80	160
20	2.20	425	1.80	160	1.62	106	1.80	160
21	2.10	345	1.80	160	1.65	115	1.80	160
22	2.10	345	1.80	160	1.60	100	1.80	160
23	2.10	345	1.80	160	1.60	100	1.80	160
24	2.05	310	1.80	160	1.65	115	1.80	160
25	2.00	275	1.80	160	1.70	130	1.80	160
26	2.00	275	1.85	185	1.70	130	1.80	160
27	2.00	275	1.85	185	1.70	130	1.80	160
28	2.00	275	1.80	160	1.70	130	1.80	160
29	2.00	275	1.75	145	1.70	130	1.80	160
30	2.00	275	1.80	160	1.80	160	1.90	210
31	1.90	210	1.80	160	.....	.....	1.90	210

DAILY Gauge Height and Discharge of Sheep River, near Okotoks, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.	Gauge Height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	4.15	2,983	3.00	1,082	3.05	862	1.90	156	1.70	98
2	.....	.....	4.35	3,212	3.00	1,052	2.90	720	1.90	156	1.70	98
3	.....	.....	4.25	3,097	3.00	1,022	2.80	630	1.95	172	1.70	98
4	.....	.....	4.00	2,814	3.20	1,200	2.70	544	1.95	172	1.70	98
5	.....	.....	3.70	2,480	3.30	1,280	2.80	630	1.95	172	1.70	98
6	.....	.....	3.50	2,264	3.70	1,736	2.60	470	1.95	172	1.70	98
7	1.70	705	3.30	2,050	4.00	2,116	2.50	404	1.90	156	1.65	85
8	2.10	988	3.20	1,946	3.80	1,792	2.50	404	1.80	126	1.65	85
9	2.10	988	3.10	1,844	3.50	1,370	2.40	348	1.75	112	1.60	72
10	2.25	1,101	3.30	2,050	3.50	1,330	2.40	348	1.75	112	1.65	85
11	2.45	1,260	3.50	2,264	3.30	1,110	2.40	348	1.75	112	1.70	98
12	2.30	1,140	3.60	2,372	3.20	1,008	2.30	300	1.80	126	1.70	98
13	3.25	1,998	3.50	2,264	3.20	1,008	2.20	258	1.75	112	1.65	85
14	3.00	1,744	3.40	2,156	3.20	1,008	2.20	258	1.75	112	1.65	85
15	3.20	1,946	3.50	2,264	3.10	910	2.20	258	1.75	112	1.65	85
16	2.80	1,558	3.60	2,228	3.00	814	2.10	222	1.75	112	1.65	85
17	2.80	1,558	3.40	2,088	2.90	720	2.10	222	1.75	112	1.65	85
18	2.70	1,470	3.40	2,048	2.90	720	2.10	222	1.80	126	1.65	85
19	3.30	2,050	3.50	2,116	2.80	630	2.10	222	1.85	141	1.70	98
20	3.50	2,264	3.40	1,974	2.70	544	2.10	222	1.85	141	1.65	85
21	3.30	2,050	3.40	1,936	2.60	470	2.00	188	1.85	141	1.65	85
22	3.80	2,590	3.20	1,700	2.50	404	2.00	188	1.85	141	1.65	85
23	3.50	2,264	3.00	1,484	2.50	404	2.00	188	1.80	126	1.65	85
24	4.40	3,270	3.00	1,452	2.45	376	2.00	188	1.75	112	1.65	85
25	4.50	3,386	3.00	1,420	2.40	348	1.95	172	1.75	112	1.65	85
26	4.00	2,814	3.10	1,474	2.50	404	1.95	172	1.75	112	1.65	85
27	4.00	2,814	3.00	1,356	3.35	1,164	2.00	188	1.75	112	1.65	85
28	4.40	3,270	3.00	1,172	4.25	2,353	1.95	172	1.75	112	1.65	85
29	4.10	2,926	2.90	1,038	3.60	1,448	1.95	172	1.75	112	1.65	85
30	3.90	2,702	2.90	1,008	3.40	1,218	1.95	172	1.75	112	1.65	85
31	4.10	2,926	.....	.....	3.20	1,008	1.95	172	.....	.....	1.65	85

Monthly Discharge of Sheep River, near Okotoks, Alta., for 1908-9.

[Drainage area, 602 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
1908.						
April (5-30)	880	80	173.5	0.288	0.278	8,945
May	3,400	130	968.8	1.609	1.855	59,567
June	7,685	880	2,396.6	3.981	4.441	142,604
July	780	210	444.4	0.738	0.851	27,322
August	210	145	187.4	0.311	0.358	11,522
September	160	100	122.8	0.204	0.228	7,307
October	275	160	191.6	0.318	0.367	11,782
The period						269,049
1909.						
May (7-31)	3,386	705	2,071.3	3.441	3.199	102,708
June	3,212	1,008	2,018.5	3,353	3.741	120,108
July	2,116	348	1,033.8	1.717	1.979	63,568
August	862	172	318.2	0.528	0.609	19,565
September	172	112	130.1	0.216	0.241	7,743
October	98	72	88.4	0.147	0.169	5.433
The period						319,125

Highwood River at High River, Alta.

This station was first established some years ago, by the Irrigation Surveys. It was re-established May 28, 1908, by P. M. Sauder. It is located at the highway bridge in the town of High River.

A plain staff gauge, graduated to feet and tenths, is fastened vertically to the downstream face of the centre pier. It is referred to bench marks as follows:—(1) top of crib pier to which the gauge height is fixed, elevation 10.41; (2) top of crib abutment on left bank, elevation 10.40; (3) southwest corner of concrete pier supporting north end of C.P.R. bridge elevation 8.38.

The channel is straight for about 300 feet above and below the station. The right bank is low and liable to overflow. It is composed of gravel and sand and covered with brush. The left bank is low but is protected from overflow by a crib work. The current is swift in high stages of the stream, but is sluggish in low water.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inside edge of the crib abutment, supporting the north end of the bridge. Distances are marked on the bottom cord of the bridge at every five feet from the initial point. There is an eddy about the centre pier and special care must be exercised by the hydrographer in making discharge measurements at this station. At extreme low water, a check measurement is made at a wading section about 300 yards below the bridge.

At a point about half a mile above this station, the Little Bow ditch, operated by the Provincial Government diverts water from Highwood River into the head of the Little Bow River. The diverting dam has been so damaged that during the past two years, water could only be diverted in the higher stages of the river, and even then only a very small amount of water was diverted.

During the flood in 1908, Highwood River overflowed its left bank above the town. This water was dammed by the Canadian Pacific railroad grade running north from High

River. After flooding several hundred acres of agricultural land it broke through the railroad grade and reached the river some distance below the town. To prevent a repetition of this occurrence, a highwater overflow channel has been constructed from the Lineham Mill Pond, to the river. The water through this overflow does not pass the gauging station There was no excessive high water during 1909, but during the latter part of the summer there was a small flow through the overflow channel, caused by the mill company raising the water in their pond, to float logs. Miscellaneous discharge measurements of the flow at the spillway, at the head of this channel and of the flow of the Little Bow ditch were made on the same days as Highwood River was measured at the regular station.

The observations of the daily gauge height, on Highwood River, at High River, have been made by F. H. Holmes, since August 1, 1908.

DISCHARGE Measurements of Highwood River, at High River, Alta., in 1906-7-8-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1906.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 5	J. F. Hamilton	147	444	3.18	3.00	1,411
1907.						
May 30	I. J. Walmsley	147	497	3.35	3.50	1,664
October 2	....do	147	359	2.30	.....	823
1908.						
May 28	H. R. Carscallen	149	539	3.05	3.65	1,643
June 9	....do	154	885	5.77	5.92	4,891
July 14	....do	146.5	523	1.75	3.45	912
July 31	....do	136.0	413	1.04	2.76	432
August 27	....do	92.5	374	0.74	2.465	277
September 9	....do	89.0	360	0.54	2.265	194
September 28	....do	89.5	358	0.56	2.28	201
1909.						
May 8	H. C. Ritchie	94.0	371	1.04	2.58	348
June 16	J. C. Keith	151.0	702	4.67	4.89	3,281
July. 12	....do	149.5	515	2.77	3.69	1,428
July 26†	....do	120.8	417	1.71	2.98	715
August 21†	....do	90.5	375	1.22	2.55	458
September 16†	....do	84.3	344	0.83	2.20	286
October 22*	P. M. Sauder	92.0	89	1.63	2.05	145

*Measurement taken at wading section.
†Measurements are too high owing to back water.

DAILY Gauge Height and Discharge of Highwood River, at High River, for 1908.

Day.	June.		July.		August.		September.		October.	
	Gauge Height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	5.60	4,320	.....	.....	2.75	432	2.45	272	2.45	272
2	8.30	9,180	.....	.....	2.80	460	2.35	228	2.50	295
3	7.60	7,920	.....	.....	2.75	433	2.35	227	2.55	322
4	6.60	6,120	.....	.....	2.70	405	2.30	205	2.50	295
5	7.00	6,840	.....	.....	2.65	377	2.30	205	2.40	250
6	6.80	6,480	.....	.....	2.65	378	2.25	188	2.35	228
7	6.10	5,220	.....	.....	2.60	350	2.25	187	2.40	250
8	5.90	4,860	.....	.....	2.60	350	2.25	188	2.35	227
9	5.70	4,500	.....	.....	2.60	350	2.25	187	2.35	228
10	5.60	4,320	.....	.....	2.60	350	2.25	188	2.35	227
11	5.40	3,960	.....	.....	2.60	350	2.30	205	2.35	228
12	5.10	3,420	.....	.....	2.70	405	2.25	187	2.35	227
13	5.10	3,420	.....	.....	2.70	405	2.25	188	2.35	228
14	5.00	3,240	.....	.....	2.65	377	2.20	170	2.40	250
15	4.90	3,060	.....	.....	2.65	378	2.20	170	2.45	272
16	4.90	3,060	.....	.....	2.60	350	2.15	160	2.40	250
17	4.70	2,705	.....	.....	2.55	322	2.20	170	2.40	250
18	4.70	2,705	.....	.....	2.50	295	2.25	187	2.35	228
19	4.60	2,530	.....	.....	2.50	295	2.25	188	2.15	160
20	5.70	4,500	.....	.....	2.45	272	2.20	170	2.25	187
21	5.85	4,770	.....	.....	2.50	295	2.20	170	2.30	205
22	4.75	2,792	.....	.....	2.60	350	2.20	170	2.15	160
23	4.65	2,618	.....	.....	2.50	295	2.20	170	2.20	170
24	4.50	2,365	.....	.....	2.50	295	2.35	227	2.15	160
25	4.60	2,530	.....	.....	2.60	350	2.35	228	2.15	160
26	4.65	2,618	.....	.....	2.50	295	2.35	227	2.20	170
27	4.50	2,365	.....	.....	2.45	273	2.30	205	2.20	170
28	.....	.....	.....	.....	2.40	250	2.30	205	2.25	188
29	.....	.....	.....	.....	2.40	250	2.30	205	2.25	187
30	.....	.....	.....	.....	2.50	295	2.25	188	2.30	205
31	.....	.....	.....	.....	2.55	322	.....	.....	2.30	205

NOTE.—No observer from June 28th to July 31st.
Rating curve is not well defined above gauge height, 6.10.

DAILY Gauge Height and Discharge of Highwood River, at High River, Alta., for 1909.

Day.	April.		May.		June.	
	Gauge Height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	1.95	130	2.30	240	5.00	3,465
2	1.90	120	3.00	710	5.50	4,315
3	1.95	130	3.40	1,095	5.55	4,400
4	1.85	115	3.50	1,205	5.10	3,635
5	1.85	115	2.80	545	4.60	2,800
6	1.90	120	2.70	475	4.55	2,720
7	1.90	120	2.60	405	4.35	2,400
8	1.85	115	2.60	405	4.30	2,320
9	1.90	120	2.60	405	4.15	2,085
10	1.85	115	2.60	405	4.10	2,010
11	1.90	120	3.00	710	4.50	2,640
12	1.85	115	2.65	440	4.70	2,965
13	1.90	120	3.10	800	4.80	3,130
14	2.00	140	3.00	710	4.80	3,130
15	2.10	165	3.40	1,095	4.80	3,130
16	2.10	165	3.20	895	4.80	3,130
17	2.20	200	2.90	625	4.80	3,130
18	2.30	240	2.90	625	4.80	3,130
19	2.30	240	3.10	800	4.75	3,047
20	2.20	200	3.70	1,445	4.70	2,965
21	2.20	200	3.80	1,575	4.60	2,800
22	2.10	165	4.30	2,320	4.50	2,640
23	2.10	165	5.20	3,805	4.25	2,240
24	2.20	200	5.15	3,720	4.10	2,010
25	2.40	290	5.05	3,550	4.00	1,860
26	2.45	317	4.90	3,295	4.00	1,860
27	2.50	345	4.90	3,295	3.70	1,445
28	2.55	375	4.90	3,295	3.70	1,445
29	2.40	290	4.90	3,295	3.60	1,320
30	2.50	345	4.85	3,212	3.65	1,382
31	.....	.....	4.85	3,212	.....	.....

DAILY Gauge Height and Discharge of Highwood River, at High River, for 1909—*Con.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	4.15	2,085	3.50	1,205	2.40	290	2.05	153
2	4.20	2,160	3.40	1,095	2.35	265	2.00	140
3	4.10	2,010	3.30	995	2.35	265	2.05	152
4	4.15	2,085	3.25	945	2.35	265	2.05	153
5	4.00	1,860	3.15	847	2.35	265	2.00	140
6	4.40	2,480	3.05	755	2.35	265	2.05	152
7	4.70	2,965	3.00	710	2.35	265	2.05	153
8	4.10	2,010	2.95	667	2.35	265	2.05	152
9	4.00	1,860	2.95	667	2.35	265	2.00	140
10	3.90	1,715	2.90	625	2.30	240	2.05	153
11	3.70	1,445	2.85	585	3.35	265	2.05	152
12	3.60	1,320	2.80	545	2.35	265	2.05	153
13	3.50	1,205	2.80	545	2.30	240	2.00	140
14	3.65	1,382	2.75	510	2.25	220	2.00	140
15	3.40	1,095	2.75	510	2.25	220	2.05	152
16	3.35	1,045	2.70	475	2.25	220	2.00	140
17	3.30	995	2.65	440	2.20	200	2.00	140
18	3.15	847	2.65	440	2.20	200	2.00	140
19	3.05	755	2.60	405	2.20	200	2.05	153
20	3.05	755	2.55	375	2.15	182	2.05	152
21	3.00	710	2.55	375	2.20	200	2.00	140
22	3.05	755	2.55	375	2.25	220	2.00	140
23	3.00	710	2.50	345	2.20	200	2.00	140
24	2.95	667	2.50	345	2.25	220	2.00	140
25	3.01	719	2.45	317	2.30	240	2.05	153
26	3.50	1,205	2.45	318	2.10	165	2.05	152
27	3.80	1,575	2.45	317	2.00	140	2.00	140
28	4.80	3,130	2.45	318	2.00	140	2.00	140
29	4.30	2,320	2.45	317	2.05	152	2.00	140
30	3.90	1,715	2.45	318	2.10	165	2.00	140
31	3.70	1,445	2.40	290	.....	.....	2.00	140

MONTHLY Discharge of Highwood River, at High River, Alta., for 1908–9.

[Drainage area, 735 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square. mile.	Depth in inches on Drainage. area.	Total in acre-feet.
1908.						
June (1-27)	9,180	2,365	4,163.6	5.665	5.688	222,978
July						
August	460	250	342.1	0.465	0.536	21,033
September	272	160	195.5	0.266	0.297	11,633
October	322	160	221.1	0.301	0.347	13,595
The period						269,239
1909.						
April	375	115	186.6	0.254	0.283	11,101
May	3,805	240	1,568.1	2.133	2.459	96,420
June	4,400	1,320	2,651.6	3.607	4.025	157,786
July	2,965	667	1,516	2.064	2.379	93,273
August	1,205	290	547.6	0.745	0.859	33,671
September	290	140	223.5	0.304	0.339	13,297
October	153	140	145.6	0.198	0.228	8,955
The period						414,503

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Little Bow Ditch, at High River, Alta., in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
July 12	J. C. Keith	Near intake	11.5	8.3	7.08
July 26	do	do			Nil.
August 21	do	do			Nil.
September 16	do	do			Nil.
October 22	P. M. Sauder	do			Nil.

MISCELLANEOUS Discharge Measurements of Spillway at Lineham's Lumber Mill, at High River, Alta., in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
July 26	J. C. Keith	At C.P.R. culvert	3.0	4.7	15.6
August 21	do	do	4.5	2.07	5.6
September 16	do	do	3.0	1.0	.8
October 22	P. M. Sauder	do			Nil.

MISCELLANEOUS Discharge Measurements of Tongueflag Creek, near High River, Alta., in 1908–9.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq. ft.*	*Sec.-ft.*
1908.					
May 30	H. R. Carscallen	Sec. 19-19-28-4	16.	16.2	30.2
July 30	....do	....do	15.	12.8	12.3
August 27	....do	....do	14.5	12.6	12.1
September 9	....do	....do	14.0	10.8	6.6
September 29	H. C. Ritchie	....do	14.0	13.4	16.0
1909.					
May 7	H. C. Ritchie	....do	15.0	14.3	18.2
June 18	J. C. Keith	....do	12.0	9.5	12.1
July 10	....do	....do	12.0	13.7	27.8
July 24	....do	....do	12.0	6.1	2.4
August 21	....do	....do	4.0	1.1	0.8

MISCELLANEOUS Discharge Measurements of Highwood River, at Traffic Bridge, on Section 18, Township 20, Range 28, west of the 4th Meridian, near Aldersyde, Alta., in 1908.

Date.	Hydrographer.	Width.	Area of section.	Discharge.
		Feet.	*Sq. ft.*	*Sec.-ft.*
July 14	H. R. Carscallen	169.5	330	923
July 30	....do	148.5	249	463
August 27	....do	138.	195	302
September 9	....do	132.5	167	201
September 29	....do	133.	.....	231

MOSQUITO CREEK, NEAR NANTON, ALTA.

This station was established August 1, 1908, by H. C. Ritchie. It is located at the traffic bridge, about four miles from Nanton, on the road from Nanton to Cayley. The bridge is on a road diversion on Section 30, Township 16, Range 28 west of the 4th Meridian.

A plain staff gauge, graduated to feet and hundredths, was at first driven about twenty feet upstream from the bridge, in the bed of the stream at the right bank and stayed to posts driven in the bank. This location was not altogether suitable, being on the opposite side of the stream from the observer and the hole about the gauge was continually filling in with sand and mud. During the winter the gauge was disturbed by frost. On July 7, 1909, Mr. Ritchie re-established the gauge on the opposite bank of the stream and built a plank crib about it and the difficulties above mentioned have been almost overcome. The gauge is referred to two spike heads in the south side of the bridge pier at the right bank of the stream.

The channel is straight for about 175 feet below the station, then curves to the left. Above the station the channel curves slightly to the left for about 500 feet, then it turns sharply to the left. Right bank is low at water's edge but high a few feet from it. Sand and mud deposit on this bank in high water. The left bank is high and is of solid clay with a few boulders. There is only one channel at low water. The bridge piers divide the stream into three channels at flood stage.

Discharge measurements are made from the bridge at high water and flood stages. The initial point for soundings is the north end of the bridge. The current is very sluggish at the bridge during low water and during this stage, discharge measurements should be made at a wading section, a distance above or below the bridge.

The gauge was read daily by A. J. Clever, who lives about 1,200 feet north of the bridge.

Discharge Measurements of Mosquito Creek near Nanton, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq.-ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 13	H. R. Carscallen	41.0	107.0	0.86	.....	92.1
August 1	....do	21.0	18.5	3.04	3.07	56.2
August 26*	....do	18.5	13.4	2.60	2.93	34.8
September 10*	....do	18.0	11.6	2.38	2.85	27.6
September 28*	....do	18.5	14.5	2.54	2.94	37.0
1909.						
May 10*	H. C. Ritchie	17.5	12.0	2.05	2.71	25.0
May 29	P. M. Sauder	42.5	103.0	1.14	3.25	119.0
June 17†	J. C. Keith	36.5	74.0	0.43	2.76	32.0
July 6	H. C. Ritchie	38.5	75.5	2.43	3.45	184.0
July 27†	J. C. Keith	37.0	75.0	0.33	2.865	25.0
August 27*	....do	14.5	7.2	0.94	2.55	6.7
September 14*	....do	6.5	3.2	1.76	2.51	5.6
October 22*	A. W. Pae	6.8	3.8	2.16	2.58	8.2

†Measurements too large, being taken at the bridge when the velocity was too low.
*Measurements taken at wading sections..

Daily Gauge Height and Discharge of Mosquito Creek, near Nanton, Alta., for 1908.

Day.	July.		August.		September.		October.	
	Gauge.. height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			3.06	54.8	2.92	34.4	2.85	26.0
2			3.05	53.0	2.88	29.6	2.96	39.4
3			3.04	51.4	2.85	26.0	2.97	40.8
4			3.05	53.0	2.84	25.0	2.92	34.4
5			3.03	49.8	2.83	24.0	2.86	27.2
6			3.02	48.2	2.82	23.0	2.88	29.6
7			3.02	48.2	2.80	21.0	2.85	26.0
8			3.09	60.2	2.78	19.4	2.84	25.0
9			3.02	48.2	2.84	25.0	2.79	20.2
10			3.00	45.0	2.84	25.0	2.79	20.2
11			3.00	45.0	2.80	21.0	2.78	19.4
12			3.15	72.0	2.79	20.2	2.78	19.4
13			3.09	60.2	2.78	19.4	2.75	17.0
14			3.02	48.2	2.76	17.8	2.80	21.0
15			3.02	48.2	2.76	17.8	2.92	34.4
16			2.99	43.6	2.78	19.4	2.91	33.2
17			2.99	43.6	2.80	21.0	2.80	21.0
18			2.96	39.4	2.84	25.0	2.78	19.4
19			2.95	38.0	2.84	25.0	2.78	19.4
20			2.92	34.4	2.82	23.0	2.80	21.0
21			2.93	35.6	2.86	27.2	2.87	28.4
22			2.95	38.0	2.86	27.2	2.85	26.0
23			2.93	35.6	2.85	26.0	2.86	27.2
24			2.95	38.0	2.82	23.0	2.80	21.0
25			2.94	36.8	2.90	32.0	2.78	19.4
26			2.92	34.4	2.92	34.4	2.77	18.6
27			2.89	30.8	2.91	33.2	2.78	19.4
28			2.89	30.8	2.93	35.6	2.79	20.2
29			2.88	29.6	2.93	35.6	2.79	20.2
30			2.91	33.2	2.92	34.4	2.80	21.0
31			2.94	36.8	.....	.....	2.85	26.0

Daily Gauge Height and Discharge of Mosquito Creek, near Nanton, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1.....	3.10	82.0	3.00	62.0	2.65	13.5	2.70	18.0	2.51	5.8	2.49	5.3
2.....	3.15	93.5	2.95	53.0	2.64	12.6	2.70	18.0	2.51	5.8	2.49	5.3
3.....	2.87	39.8	2.94	51.2	2.64	12.6	2.67	15.3	2.50	5.5	2.50	5.5
4.....	2.87	39.8	2.93	49.4	2.63	11.7	2.66	14.4	2.54	6.9	2.50	5.5
5.....	2.87	39.8	2.95	53.0	3.00	62.0	2.70	18.0	2.55	7.2	2.50	5.5
6.....	2.87	39.8	2.96	54.8	3.40	165.0	2.66	14.4	2.52	6.2	2.50	5.5
7.....	2.75	24.0	2.94	51.2	3.40	165.0	2.65	13.5	2.49	5.3	2.52	6.2
8.....	2.74	22.8	2.94	51.2	3.04	70.0	2.65	13.5	2.48	5.2	2.51	5.8
9.....	2.73	21.6	2.94	51.2	3.03	68.0	2.65	13.5	2.48	5.2	2.50	5.5
10.....	2.73	21.6	2.93	49.4	2.95	53.0	2.61	9.9	2.47	5.0	2.51	5.8
11.....	3.16	95.8	2.89	42.6	2.85	37.0	2.61	9.9	2.50	5.5	2.55	7.2
12.....	3.17	98.1	2.92	47.6	2.84	35.6	2.60	9.0	2.50	5.5	2.55	7.2
13.....	3.45	184.0	2.81	31.4	2.85	37.0	2.56	7.6	2.50	5.5	2.55	7.2
14.....	3.20	105.0	2.82	32.8	2.85	37.0	2.55	7.2	2.50	5.5	2.56	7.6
15.....	3.00	62.0	2.80	30.0	2.81	31.4	2.54	6.9	2.49	5.3	2.55	7.2
16.....	3.16	95.8	2.75	24.0	2.75	24.0	2.54	6.9	2.47	5.0	2.55	7.2
17.....	3.05	72.0	2.71	19.2	2.74	22.8	2.55	7.2	2.50	5.5	2.55	7.2
18.....	3.22	110.0	2.73	21.6	2.73	21.6	2.52	6.2	2.51	5.8	2.56	7.6
19.....	3.22	110.0	2.73	21.6	2.70	18.0	2.53	6.5	2.50	5.5	2.58	8.3
20.....	3.63	255.0	2.74	22.8	2.70	18.0	2.51	5.8	2.52	6.2	2.57	7.9
21.....	3.60	242.0	2.87	39.8	2.69	17.1	2.51	5.8	2.56	7.6	2.57	7.9
22.....	3.33	142.0	2.73	21.6	2.70	18.0	2.54	6.9	2.53	6.5	2.57	7.9
23.....	4.60	677.0	2.70	18.0	2.66	14.4	2.52	6.2	2.55	7.2	2.57	7.9
24.....	5.15	931.0	2.72	20.4	2.65	13.5	2.50	5.5	2.55	7.2	2.56	7.6
25.....	3.90	368.0	2.80	30.0	2.65	13.5	2.50	5.5	2.53	6.5	2.57	7.9
26.....	3.40	165.0	2.75	24.0	2.72	20.4	2.51	5.8	2.50	5.5	2.57	7.9
27.....	3.34	145.0	2.65	13.5	3.04	70.0	2.54	6.9	2.50	5.5	2.57	7.9
28.....	3.20	105.0	2.65	13.5	3.10	82.0	2.53	6.5	2.52	6.2	2.56	7.6
29.....	3.24	116.0	2.64	12.6	2.93	49.4	2.55	7.2	2.49	5.3	2.58	8.3
30.....	3.07	76.0	2.65	13.5	2.83	34.2	2.53	6.5	2.48	5.2	2.59	8.6
31.....	3.00	62.0	.....	.....	2.83	34.2	2.52	6.2	.....	.....	2.57	7.9

Monthly Discharge of Mosquito Creek, near Nanton, Alta., for 1908–9.

[Drainage area, 178 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on Drainage area.	Total in acre-feet.
1908.						
August	72.0	29.6	44.00	0.247	0.285	2,705
September	35.6	17.8	25.69	0.144	0.161	1,528
October	40.8	17.0	24.56	0.138	0.159	1,510
The period	.....	.....	.....	.....	.....	5,743
1909.						
May	931.0	21.6	149.7	0.841	0.969	9,208
June	62.0	12.6	34.2	0.192	0.214	2,037
July	165.0	11.7	41.4	0.232	0.267	2,544
August	18.0	5.5	9.4	0.052	0.060	577
September	7.6	5.0	5.9	0.033	0.037	349
October	8.6	5.3	7.0	0.039	0.045	432
The period	.....	.....	.....	.....	.....	15,147

NANTON CREEK, NEAR NANTON, ALTA.

This station was established August 3, 1908, by P. M. Sauder. It is located at George Topper's farm, near Nanton. It is on Section 20, Township 16, Range 28 west of the 4th Meridian and almost directly west of Mr. Topper's stable.

The gauge, which is a plain staff, graduated to feet and hunrdedths is driven vertically into the bed of the stream, at the left bank. It is attached by braces to posts in the bank. The bench mark is the top of a hub (wood stake with iron cap) on the right bank, about 75 feet southeast from the gauge; elevation 17.82 above the zero of the gauge.

This stream follows a very crooked course, but the channel is nearly straight for about 125 feet above the gauge and for about 75 feet below. The banks are well defined but not high and may overflow in excessive floods. The banks are composed of clay and covered with tough sod. The bed of the stream is composed of gravel, not liable to shift and free from vegetation.

Discharge measurements are made by wading at or near the gauge. At flood stage discharge measurements may be made at Mr. Topper's bridge, about 1,000 feet downstream from the gauge.

The gauge was read once each day by Mr. George Topper.

DISCHARGE Measurements of Nanton Creek, near Nanton, Alta., in 1908–09.

Date.	Hydrographer.	Width.	Area of Section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 13	H. R. Carscallen	12.5	30.0	1.21	.....	36.5
August 3	....do	6.8	7.4	2.06	5.95	15.3
August 26	....do	9.0	6.1	1.33	5.69	8.17
September 10	....do	9.0	6.2	1.15	5.65	7.11
September 28	P. M. Sauder	8.5	8.2	1.44	5.83	11.8
1909.						
May 10	H. C. Ritchie	8.4	6.6	1.40	5.55	9.23
May 29	P. M. Sauder	8.3	14.3	2.73	6.41	39.0
June 17	J. C. Keith	8.6	8.8	1.67	5.76	14.7
July 6	H. C. Ritchie	8.4	10.5	2.15	6.00	22.5
July 27	J. C. Keith	8.6	10.9	2.02	5.985	21.9
August 27	....do	8.5	3.6	0.93	5.23	3.36
September 14	....do	8.6	3.2	0.63	5.20	2.03
October 22	A. W. Pae	8.7	3.3	0.72	5 26	2.37

DAILY Gauge Height and Discharge of Nanton Creek, near Nanton, Alta., for 1908.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	5.75	9.7	5.70	8.4
2	.....	.....	5.70	8.4	5.90	13.8
3	5.95	15.3	5.68	7.9	5.85	12.4
4	6.00	16.8	5.65	7.2	5.80	11.0
5	5.95	15.3	5.65	7.2	5.80	11.0
6	6.03	17.7	5.65	7.2	5.85	12.4
7	5.95	15.3	5.65	7.2	5.85	12.4
8	6.03	17.7	5.65	7.2	5.83	11.8
9	5.95	15.3	5.67	7.7	5.80	11.0
10	5.93	14.7	5.68	7.9	5.78	10.5
11	5.91	14.1	5.65	7.2	5.75	9.7
12	6.13	21.0	5.65	7.2	5.70	8.4
13	6.03	17.7	5.65	7.2	5.70	8.4
14	5.95	15.3	5.65	7.2	5.68	7.9
15	5.90	13.8	5.65	7.2	5.75	9.7
16	5.90	13.8	5.65	7.2	5.70	8.4
17	5.87	12.9	5.67	7.7	5.68	7.9
18	5.85	12.4	5.67	7.7	5.65	7.2
19	5.80	11.0	5.67	7.7	5.65	7.2
20	5.80	11.0	5.66	7.4	5.65	7.2
21	5.78	10.5	5.65	7.2	5.98	16.2
22	5.77	10.2	5.65	7.2	5.88	13.2
23	5.75	9.7	5.65	7.2	5.80	11.0
24	5.90	13.8	5.66	7.4	5.75	9.7
25	5.78	10.5	5.75	9.7	5.70	8.4
26	5.69	8.2	5.80	11.0	5.68	7.9
27	5.69	8.2	5.83	11.8	5.65	7.2
28	5.69	8.2	5.83	11.8	5.65	7.2
29	5.70	8.4	5.80	11.0	5.65	7.2
30	5.75	9.7	5.78	10.5	5.70	8.4
31	5.90	13.8	.....	.....	5.75	9.7

Daily Gauge Height and Discharge of Nanton Creek, near Nanton, Alta, for 1909.

Day.	May.		June		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1.....	6.24	31.7	6.10	26.2	5.65	11.7	5.45	6.8	5.20	2.0	5.15	1.2
2.....	6.40	38.5	6.00	22.5	5.60	10.5	5.40	5.7	5.20	2.0	5.15	1.2
3.....	6.70	52.5	6.00	22.5	5.60	10.5	5.40	5.7	5.20	2.0	5.15	1.2
4.....	6.60	47.5	6.00	22.5	5.70	13.0	5.40	5.7	5.20	2.0	5.15	1.2
5.....	5.75	14.5	6.50	43.0	6.90	62.7	5.45	6.8	5.20	2.0	5.20	2.0
6.....	5.70	13.0	6.15	28.1	6.60	47.5	5.40	5.7	5.20	2.0	5.15	1.2
7.....	5.55	9.2	6.15	28.1	6.85	60.1	5.40	5.7	5.20	2.0	5.20	2.0
8.....	5.60	10.5	6.10	26.2	6.40	38.5	5.40	5.7	5.20	2.0	5 20	2.0
9.....	5.55	9.2	6.05	24.3	5.90	19.0	5.40	5.7	5.15	1.2	5.20	2.0
10.....	5.50	8.0	5.95	20.7	5.70	13.0	5.40	5.7	5.15	1.2	5.25	2.8
11.....	6.15	28.1	5.95	20.7	5.70	13.0	5.35	4.7	5.20	2.0	5.25	2.8
12.....	6.10	26.2	5.95	20.7	5.70	13.0	5.35	4.7	5.25	2.8	5.25	2.8
13.....	6.50	43.0	5.95	20.7	5.70	13.0	5.30	3.7	5.25	2.8	5.25	2.8
14.....	6.00	22.5	5.90	19.0	5.70	13.0	5.30	3.7	5.25	2.8	5.25	2.8
15.....	6.35	36.3	5.85	17.5	5.60	10.5	5.30	3.7	5.20	2.0	5.25	2.8
16.....	6.10	26.2	5.75	14.5	5.55	9.2	5.30	3.7	5.15	1.2	5.25	2.8
17.....	6.20	30.0	5.75	14.5	5.50	8.0	5.25	2.8	5.15	1.2	5.25	2.8
18.....	6.70	52.5	5.75	14.5	5.50	8.0	5.25	2.8	5.15	1.2	5.25	2.8
19.....	6.50	43.0	5.75	14.5	5.50	8.0	5.25	2.8	5.20	2.0	5.25	2.8
20.....	6.65	50.0	5.85	17.5	5.50	8.0	5.25	2.8	5.25	2.8	5.25	2.8
21.....	6.55	45.2	5.85	17.5	5.45	6.8	5.20	2.0	5.25	2.8	5.25	2.8
22.....	7.10	73.5	5.85	17.5	5.45	6.8	5.20	2.0	5.25	2.8	5.25	2.8
23.....	7.45	94.0	5.80	16.0	5.45	6.8	5.20	2.0	5.25	2.8	5.25	2.8
24.....	8.00	127.0	5.75	14.5	5.45	6.8	5.20	2.0	5.25	2.8	5.25	2.8
25.....	6.90	62.7	6.00	22.5	5.45	6.8	5.20	2.0	5.15	1.2	5.25	2.8
26.....	6.85	60.1	5.80	16.0	5.45	6.8	5.25	2.8	5.15	1.2	5.25	2.8
27.....	6.55	45.3	5.75	14.5	5.95	20.7	5.25	2.8	5.15	1.2	5.25	2.8
28.....	6.50	43.0	5.70	13.0	6.00	22.5	5.25	2.8	5.15	1.2	5.25	2.8
29.....	6.40	38.5	5.70	13.0	5.60	10.5	5.30	3.7	5.15	1.2	5.30	3.7
30.....	6.30	34.2	5.70	13.0	5.50	8.0	5.25	2.8	5.15	1.2	5.30	3.7
31.....	6.20	30.0	.....	.....	5.50	8.0	5.25	2.8	.....	.....	5.30	3.7

Monthly Discharge of Nanton Creek, near Nanton, Alta., for 1908–9.

[Drainage area, 41 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
August (3–31).....	21.0	8.2	13.2	0.321	0.246	758
September.....	11.8	7.2	8.2	0.200	0.223	488
October.....	16.2	7.2	9.8	0.238	0.274	600
The period.....	.....	.....	.....	.....	.....	1,846
1909.						
May.....	127.	8.	40.2	0.980	1.130	2.471
June.....	43.	13.	19.9	0.484	0.540	1,182
July.....	62.7	6.8	16.2	0.394	0.454	993
August.....	6.8	2.	3.9	0.096	0.111	242
September.....	2.8	1.2	1.9	0.047	0.052	114
October.....	3.7	1.2	2.5	0.061	0.070	155
The period.....	.....	.....	.....	.....	.....	5,157

Willow Creek, at New Oxley, Alta.

A gauging station was established here by H. C. Ritchie, on the 6th of August, 1908.

The gauge rod, which is a plain staff, graduated to feet and hundredths, is located at the right bank of the stream, about 100 yards from Mr. F. W. Elliott's house. It is referenced by a bench mark, made by driving two spikes into a fence post, at a distance of 25 feet northwest of the gauge; elevation 12.10.

The discharge measurements are made at a wading section, 500 yards upstream. Above this station the stream is straight for about 100 feet, where it is divided by an island. Another island is formed 200 feet below. The stream is inclined to be sluggish, particularly above the wading section. The bed is of sand and shifty. The right bank is high and clean while the left is low and liable to be overflowed during flood stage.

The bed and banks shift almost continuously during high and flood stages of the stream and during those periods the results at this station were likely to be more or less unsatisfactory. Early in the season of 1909, the gauge was carried away by a freshet and it was then decided to abandon this station and to establish a new station near Macleod, Alta.

Discharge Measurements of Willow Creek, at New Oxley, P.O., Alta., in 1908.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 7	H. R. Carscallen	64.5	44.7	2.55	2.70	114.
August 25	do	60.0	35.0	2.50	2.56	87.3
September 11	do	44.5	24.0	2.05	2.35	49.1
September 23	do	44.0	23.5	2.02	2.32	47.4

DAILY Gauge Height and Discharge of Willow Creek, at New Oxley, P.O., Alta., for 1908.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.5	75.5	2.6	94
2	.....	.....	2.5	75.5	2.6	94
3	.....	.....	2.5	75.5	2.7	114
4	.....	.....	2.5	75.5	2.6	94
5	.....	.....	2.4	58	2.6	94
6	2.7	114	2.4	58	2.5	75.5
7	2.7	114	2.4	58	2.5	75.5
8	2.7	114	2.4	58	2.5	75.5
9	2.7	114	2.4	58	2.5	75.5
10	2.6	94	2.4	58	2.5	75.5
11	2.6	94	2.4	58	2.5	75.5
12	2.8	135	2.4	58	2.5	75.5
13	2.8	135	2.3	44.5	2.5	75.5
14	2.7	114	2.3	44.5	2.5	75.5
15	2.7	114	2.3	44.5	2.5	75.5
16	2.7	114	2.3	44.5	2.4	58
17	2.6	94	2.3	44.5	2.4	58
18	2.6	94	2.3	44.5	2.4	58
19	2.6	94	2.3	44.5	2.4	58
20	2.6	94	2.3	44.5	2.4	58
21	2.6	94	2.3	44.5	2.4	58
22	2.6	94	2.3	44.5	2.4	58
23	2.6	94	2.3	44.5	2.4	58
24	2.6	94	2.4	58	2.4	58
25	2.6	94	2.4	58	2.4	58
26	2.6	94	2.4	58	2.4	58
27	2.5	75.5	2.4	58	.....	.....
28	2.5	75.5	2.5	75.5	.....	.....
29	2.5	75.5	2.5	75.5	.....	.....
30	2.5	75.5	2.5	75.5	.....	.....
31	2.5	75.5	.....	.....	.....	.....

MONTHLY Discharge of Willow Creek, at New Oxley, P.O., Alta., for 1908.

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
August (6–31)	135	75.5	98.98	.....	.....	5,104
September	75.5	44.5	57.13	.....	.....	3,400
October (1–26)	114	58	72.42	.....	.....	3,735
The period	.....	.....	.....	.....	.....	12,239

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Willow Creek, at traffic bridge, on south of Section 6, Township 11, Range 26 west of the 4th Meridian, near Granum, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Sec.-ft.*
July 8	H. R. Carscallen	208	374	698
1909.				
June 7	H. C. Ritchie	195.5	393	906

Trout Creek, at Labute's Ranche.

This gauging station, which is situated on John Labute's ranch, Section 33, Township 11, Range 28 west of the 4th Meridian, was established by H. C. Ritchie, on July 28, 1908.

The gauge which is a plain staff graduated to feet and hundredths, is located on the right bank of the stream, within 180 feet of Mr. Labute's house. It is referenced by a bench mark placed on a tree about 25 yards downstream; elevation 7.80.

The channel is straight for 90 feet above and 60 feet below the gauge. The bed is rocky and clean and is in one channel. The right bank is low for about 20 feet, when it rises abruptly. The left bank is low and sandy and is overflowed in high water. Both banks are wooded.

The discharge measurements on this creek, were taken at a wading section, three feet below the gauge; the initial point for soundings being marked on a tree on the right bank.

The daily gauge height was read by Mr. John Labute.

Discharge Measurements of Trout Creek, at Labute's Ranche, in 1908.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 5	H. R. Carscallen	28.0	26.3	2.18	1.42	57.2
August 25	....do	27.0	19.6	2.32	1.21	45.5
September 11	....do	25.5	14.4	1.88	1.04	27.1
September 22	....do	23.5	12.8	1.83	0.985	23.3
1909.						
May 14	H. C. Ritchie	27.0	18.8	2.06	1.15	38.7

Daily Gauge Height and Discharge of Trout Creek, at Labute's Ranche, for 1908.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			1.5	64	1.1	31.5	1.1	31.5
2			1.5	64	1.1	31.5	1.1	31.5
3			1.3	47.5	1.1	31.5	1.1	31.5
4			1.3	47.5	1.1	51.5	1.1	31.5
5			1.3	47.5	1.1	31.5	1.1	31.5
6			1.3	47.5	1.1	31.5	1.1	31.5
7			1.3	47.5	1.1	31.5	1.1	31.5
8			1.3	47.5	1.1	31.5	1.1	31.5
9			1.3	47.5	1.1	31.5	1.1	31.5
10			1.3	47.5	1.1	31.5	1.1	31.5
11			1.3	47.5	1.1	31.5	1.1	31.5
12			1.5	64	1.1	31.5	1.1	31.5
13			1.5	64	1.1	31.5	1.1	31.5
14			1.3	47.5	1.1	31.5	1.1	31.5
15			1.3	47.5	1.1	31.5	1.0	24
16			1.3	47.5	1.1	31.5	1.0	24
17			1.3	47.5	1.1	31.5	1.0	24
18			1.3	47.5	1.1	31.5	1.0	24
19			1.3	47.5	1.1	31.5	1.0	24
20			1.3	47.5	1.1	31.5	1.0	24
21			1.3	47.5	1.1	31.5	1.0	24
22			1.3	47.5	1.0	24	1.0	24
23			1.3	47.5	1.0	24	1.0	24
24			1.3	47.5	1.0	24	1.0	24
25			1.3	47.5	1.0	24	1.0	24
26			1.3	47.5	1.1	31.5	1.0	24
27			1.3	47.5	1.0	24	1.0	24
28			1.3	47.5	1.0	24	1.0	24
29	1.5	64	1.3	47.5	1.1	31.5	1.0	24
30	1.5	64	1.3	47.5	1.1	31.5	1.0	24
31	1.5	64	1.3	47.5			1.0	24

Monthly Discharge of Trout Creek at Labute's Ranche, for 1908.

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
July (29–31)	64	64	64.00			381
August	64	47.5	49.63			3,052
September	31.5	24	30.00			1,785
October	31.5	24	27.39			1,684
The period						6,902

Trout Creek, near Stevenson's Farm.

As no observer was available for the gauge on Section 33, Township 11, Range 28 west of the 4th Meridian, at Labute's ranche, for 1909, it was necessary to establish a new station elsewhere. A suitable location could not be found above the intakes of Charles Sharples and Messrs. John and William Stevenson's ditches. It was therefore decided to establish another station below these ditches. So far as can be learned no water was diverted by either of the ditches during 1909.

On May 14, 1909, H. C. Ritchie established a station about seven miles south west of Claresholm, at the bridge on the road allowance east of Section 1, Township 12, Range 28 west of the 4th Meridian.

The gauge which is a plain staff, graduated to feet and hundredths, is attached vertically to the left abutment, in line with the downstream side of the bridge. It is referred to the top of the outer pile on the downstream end of the same abutment; elevation 7.99 above the zero of the gauge.

The channel of this stream is very crooked. It is straight for about 60 feet above and 50 feet below the bridge. The banks are low, composed of sand and gravel and partly covered with brush. The stream overflows its banks above the bridge in flood stage, but the water is all carried off through the opening of the bridge.

During higher stages of the stream, discharge measurements are made from the downstream side of the bridge. The initial point for sounding is the inside face of the left abutment. During low water, discharge measurements can be made by wading at or near the bridge.

The gauge was read by John Stevenson.

Discharge Measurements of Trout Creek, near Stevenson's Farm, in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per-sec.*	*Feet.*	*Sec.-ft.*
July 10	H. R. Carscallen	33.5	65.3	3.16	.....	206
1909.						
May 14	H. C. Ritchie	28.3	33.1	1.24	1.40	41.2
June 5	....do	28.3	64.2	2.93	2.50	188
July 2	....do	28.3	40.7	1.56	1.66	63.5
July 28	J. C. Keith	28.3	42.7	1.88	1.79	80.3
August 28	....do	28	24.0	0.70	1.00	16.8
September 15	....do	28	20.4	0.49	0.90	10.1

DAILY Gauge Height and Discharge of Trout Creek, near Stevenson's Farm, for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.10	122.0	1.80	81.0	.....	.....	1.00	15.0	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	2.60	206.0	1.80	81.0	.....	.....	1.00	15.0	.....	.....
4	.....	.....	.....	.....	.....	.....	1.50	49.5	1.00	15.0	1.00	15.0
5	.....	.....	2.50	188.0	.....	.....	.....	.....	.....	.....	1.00	15.0
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	15.0
7	.....	.....	.....	.....	.....	.....	1.40	41.0	1.00	15.0	1.00	15.0
8	.....	.....	2.50	188.0	.....	.....	.....	.....	1.00	15.0	1.00	15.0
9	.....	.....	.....	.....	1.70	69.5	1.30	33.0	.....	.....	.....	.....
10	.....	.....	2.30	153.0	1.70	69.5	.....	.....	1.00	15.0	.....	.....
11	.....	.....	.....	.....	.....	.....	.....	.....	1.00	15.0	.....	.....
12	.....	.....	2.20	138.0	.....	.....	1.30	33.0	.....	.....	1.00	15.0
13	.....	.....	.....	.....	1.60	59.0	.....	.....	1.00	15.0	.....	.....
14	1.40	41.0	.....	.....	.....	.....	1.20	26.5	1.00	15.0	.....	.....
15	1.40	41.0	.....	.....	1.60	59.0	.....	.....	.....	.....	1.00	15.0
16	.....	.....	2.10	122.0	.....	.....	1.20	26.5	1.00	15.0	1.00	15.0
17	.....	.....	.....	.....	1.50	49.5	.....	.....	.....	.....	.....	.....
18	.....	.....	.....	.....	.....	.....	1.20	26.5	1.00	15.0	1.00	15.0
19	.....	.....	2.10	122.0	.....	.....	1.20	26.5	.....	.....	.....	.....
20	1.70	69.5	.....	.....	1.50	49.5	.....	.....	.....	.....	1.00	15.0
21	.....	.....	.....	.....	1.50	49.5	1.20	26.5	1.00	15.0	.....	.....
22	2.50	188.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	.....	.....	2.00	108.0	1.50	49.5	.....	.....	1.00	15.0	1.00	15.0
24	3.10	310.0	.....	.....	.....	.....	1.10	20.0	1.00	15.0	.....	.....
25	.....	.....	.....	.....	.....	.....	.....	.....	1.00	15.0	.....	.....
26	3.60	437.0	1.80	81.0	.....	.....	.....	.....	.....	.....	1.00	15.0
27	.....	.....	.....	.....	.....	.....	1.10	20.0	.....	.....	.....	.....
28	.....	.....	.....	.....	1.80	81.0	1.10	20.0	1.00	15.0	1.00	15.0
29	3.00	288.0	1.80	81.0	.....	.....	.....	.....	1.00	15.0	.....	.....
30	.....	.....	.....	.....	1.60	59.0	.....	.....	1.00	15.0	1.00	15.0
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MONTHLY Discharge of Trout Creek, Near Stevenson's Farm, for 1909.

[Drainage area 168 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
May (14-31)	437.	41.0	196.4	1.169	0.782	7,013
June	206.	81.0	137.4	0.818	0.913	8.176
July	81.	49.5	63.1	0.375	0.432	3,879
August	49.5	20.	29.1	0.173	0.199	1,788
September	15.	15.	15.	0.089	0.099	893
October	15.	15.	15.	0.089	0.103	922
The period						22,67

Muddypound Creek, at Hart's Ranche.

This station was established by H. C. Ritchie, on July 27, 1908. It is located on L. O. Hart's ranche, eleven miles from Claresholm, on Sec 27, Tp. 11, Rge. 28, W. 4 M.

The gauge, which is a plain staff graduated to feet and hundredths is braced to the left bank, about 15 feet upstream from a foot bridge. It is referred to an iron bolt being driven into the ground, near a fence post about 35 feet N.W. of gauge; elevation 8.94.

The stream which has an average velocity at ordinary stages, flows through a deep and narrow channel. It is straight for 30 feet above and 110 feet below the foot bridge from which the discharge measurements are made. The bed is of clean gravel with soft clay edges. Both banks are high but liable to overflow in excessive floods.

The discharge measurements taken from the foot bridge are quite satisfactory for medium and high stages of the stream, but at very low water the velocity is insufficient for accurate results.

The gauge was read daily by Mr. W. O. Hart whose house is located about 175 yards from the gauge.

Discharge Measurements of Muddypound Creek at Hart's Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 9	H. R. Carscallen	17.5	22	1.72	.....	38.1
July 27	H. C. Ritchie	13.0	21.6	1.07	2.65	23.3
August 5	....do	13.0	20	0.89	2.55	17.8
August 25	H. R. Carscallen	13.0	18.3	0.59	2.40	10.8
September 11	....do	13.0	16.4	0.37	2.27	6.08
September 22	....do	8.5	4.8	1.16	2.25	5.54
1909.						
May 14	H. C. Ritchie	13.6	16.3	0.80	2.34	13.0
June 5	....do	14.0	26.8	1.48	3.02	39.8
July 2	....do	13.5	17.9	0.74	2.45	13.2
July 28	J. C. Keith	13.3	21.5	1.27	2.69	27.3
August 28	....do	13.0	14.9	0.46	2.20	6.87
September 15	....do	13.0	12.6	0.27	2.15	3.38
October 21	A. W. Pae	12.9	11.5	0.31	2.16	3.54

DAILY Gauge Height and Discharge of Muddypound Creek, at Hart's Ranche, for 1908.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.65	23.3	2.37	9.6	2.33	8.1
2			2.64	22.6	2.37	9.6	2.30	7.0
3			2.64	22.6	2.36	9.2	2.30	7.0
4			2.60	20.3	2.35	8.9	2.30	7.0
5			2.55	17.6	2.33	8.1	2.29	6.7
6			2.55	17.6	2.31	7.4	2.28	6.4
7			2.55	17.6	2.31	7.4	2.26	5.9
8			2.54	17.1	2.30	7.0	2.24	5.3
9			2.53	16.6	2.30	7.0	2.23	5.1
10			2.53	16.6	2.30	7.0	2.23	5.1
11			2.53	16.6	2.28	6.4	2.23	5.1
12			2.56	18.1	2.27	6.2	2.23	5.1
13			2.55	17.6	2.26	5.9	2.23	5.1
14			2.54	17.1	2.25	5.6	2.23	5.1
15			2.52	16.0	2.25	5.6	2.30	7.0
16			2.48	14.1	2.26	5.9	2.31	7.4
17			2.48	14.1	2.27	6.2	2.30	7.0
18			2.45	12.9	2.27	6.2	2.29	6.7
19			2.43	12.0	2.27	6.2	2.29	6.7
20			2.41	11.2	2.28	6.4	2.30	7.0
21			2.40	10.7	2.28	6.4	2.29	6.7
22			2.40	10.7	2.28	6.4	2.28	6.5
23			2.40	10.7	2.29	6.7	2.28	6.5
24			2.40	10.7	2.30	7.0	2.28	6.5
25			2.39	10.4	2.33	8.1	2.29	6.7
26			2.38	10.0	2.50	15.0	2.28	6.4
27	2.65	23.3	2.37	9.6	2.70	26.0	2.28	6.4
28	2.66	23.7	2.37	9.6	2.40	10.7	2.27	6.2
29	2.66	23.7	2.37	9.6	2.38	10.0	2.27	6.2
30	2.65	23.3	2.37	9.6	2.35	8.9	2.27	6.2
31	2.65	23.3	2.37	9.6			2.27	6.2

DAILY Gauge Height and Discharge of Muddypound Creek, at Hart's Ranche, for 1909.

Day.	April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.3	11	3.1	43.5
2			2.35	13	3.0	39
3			2.39	14.6	3.0	39
4			2.75	29	3.0	39
5			2.5	19	3.0	39
6			2.3	11	3.0	39
7			2.3	11	2.9	35
8			2.3	11	2.9	35
9			2.3	11	2.9	35
10			2.3	11	2.85	33
11			2.5	19	2.8	31
12			2.45	17	2.8	31
13			2.55	21	2.7	27
14			2.3	11	2.7	27
15			2.43	16.2	2.7	27
16			2.6	23	2.7	27
17	2.3	11	2.45	17	2.7	27
18	2.2	7	2.6	23	2.7	27
19	2.2	7	2.7	27	2.7	27
20	2.3	11	2.9	35	2.7	27
21	2.25	9	3.3	54	2.65	25
22	2.2	7	3.6	73	2.65	25
23	2.2	7	3.7	79.5	2.65	25
24	2.2	7	4.0	101.5	2.65	25
25	3.1	43.5	3.8	86.5	2.65	25
26	3.55	69.7	3.6	73	2.65	25
27	3.2	48.5	3.5	66.5	2.63	24.2
28	2.5	19	3.45	63.2	2.6	23
29	2.3	11	3.3	54	2.55	21
30	2.3	11	3.3	54	2.5	19
31			3.2	48.5		

DAILY Gauge Height and Discharge of Muddypound Creek, at Hart's Ranche, for 1909—*Concluded.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.5	19	2.45	17	2.15	5.7	2.05	3.7
2	2.5	19	2.4	15	2.15	5.7	2.05	3.7
3	2.5	19	2.4	15	2.15	5.7	2.05	3.7
4	2.5	19	2.4	15	2.1	4.5	2.05	3.7
5	2.7	27	2.4	15	2.1	4.5	2.05	3.7
6	2.6	23	2.35	13	2.1	4.5	2.05	3.7
7	2.6	23	2.35	13	2.1	4.5	2.05	3.7
8	2.5	19	2.35	13	2.1	4.5	2.05	3.7
9	2.5	19	2.35	13	2.1	4.5	2.05	3.7
10	2.5	19	2.35	13	2.05	3.7	2.05	3.7
11	2.5	19	2.3	11	2.05	3.7	2.05	3.7
12	2.45	17	2.3	11	2.05	3.7	2.05	3.7
13	2.45	17	2.3	11	2.05	3.7	2.05	3.7
14	2.45	17	2.3	11	2.05	3.7	2.05	3.7
15	2.45	17	2.25	9	2.05	3.7	2.05	3.7
16	2.4	15	2.23	8.2	2.05	3.7	2.05	3.7
17	2.4	15	2.2	7	2.05	3.7	2.05	3.7
18	2.4	15	2.2	7	2.05	3.7	2.05	3.7
19	2.4	15	2.2	7	2.05	3.7	2.05	3.7
20	2.4	15	2.1	4.5	2.05	3.7	2.05	3.7
21	2.4	15	2.1	4.5	2.05	3.7	2.05	3.7
22	2.35	13	2.2	7	2.05	3.7	2.05	3.7
23	2.35	13	2.2	7	2.05	3.7	2.05	3.7
24	2.35	13	2.2	7	2.05	3.7	2.05	3.7
25	2.35	13	2.2	7	2.05	3.7	2.05	3.7
26	2.35	13	2.2	7	2.05	3.7	2.05	3.7
27	3.05	41.2	2.2	7	2.05	3.7	2.05	3.7
28	2.7	27	2.2	7	2.05	3.7	2.05	3.7
29	2.5	19	2.2	7	2.05	3.7	2.05	3.7
30	2.5	19	2.15	5.7	2.05	3.7	2.05	3.7
31	2.5	19	2.15	5.7	.....	.....	2.05	3.7

MONTHLY Discharge of Muddypound Creek at Hart's Ranche, for 1908–9.

[Drainage area, 43 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
July (27-31)	23.7	23.3	23.46	0.545	0.101	233
August	23.3	9.6	14.61	0.339	0.391	898
September	26.0	5.6	8.23	0.191	0.213	490
October	8.1	5.1	6.33	0.147	0.169	389
The period						2,010
1909.						
April (17-30)	69.7	7.0	19.193	0.446	0.232	533
May	101.5	11.0	35.629	0.828	0.955	2,191
June	43.5	19.0	29.723	0.691	0.771	1,769
July	41.2	13.0	18.490	0.430	0.496	1,137
August	17.0	4.5	9.700	0.225	0.259	596
September	5.7	3.7	4.060	0.094	0.105	242
October	3.7	3.7	3.700	0.086	0.099	227
The period						6,695

WILLOW CREEK, NEAR MACLEOD, ALTA.

A gauging station was established on S.W. $\frac{1}{4}$ of sec. 25, township 9, range 26 west of the 4th Meridian, by H. C. Ritchie on July 1, 1909.

The gauge which is a plain staff, graduated to feet and hundredths, is located about 300 yards up stream from traffic bridge, near Mr. McLean's stable. It is referenced by a bench mark placed on a post within 50 feet of gauge; elevation 8.41.

The stream flows through a straight channel for about 600 feet below and above the bridge. The slope is uniform and the current is fairly swift. The bed of the channel is of gravel and free from vegetation. The right bank is high and sandy. The left bank is low, wooded, and liable to overflow in flood stages.

The discharge measurements are taken from the downstream side of the bridge at high water. The initial point for soundings is marked zero on the floor of the bridge, at a point in line with the river side of the abutment, under the north end of the bridge. During low water, the stream is waded at the same section.

The gauge was read daily by Jas. R. McLean.

DISCHARGE Measurements of Willow Creek near Macleod in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1909.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 1	H. C. Ritchie	98	165	1.84	2.70	303
July 17	do	97.5	132	1.56	2.45	206
August 9	do	74	109	1.30	2.30	141
August 23	do	58	82.7	0.83	1.85	68.9
September 9	do	52.5	74	0.63	1.66	46.6
September 25	do	53	74	0.69	1.71	51.5
October 23	A. W. Pae	51.5	73	0.56	1.66	40.9

DAILY Gauge Heights and Discharge of Willow Creek, near Mcleod, Alta., for 1909.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.70	303	2.80	350	1.80	60	1.60	34
2	2.60	262	2.70	303	1.80	60	1.60	34
3	2.50	224	2.60	262	1.80	60	1.60	34
4	2.50	224	2.50	224	1.80	60	1.60	34
5	2.40	190	2.50	224	1.80	60	1.60	34
6	3.10	518	2.40	190	1.80	60	1.60	34
7	3.70	946	2.40	190	1.70	46	1.60	34
8	3.20	584	2.30	161	1.70	46	1.60	34
9	2.90	402	2.20	136	1.70	46	1.60	34
10	2.70	303	2.30	161	1.70	46	1.60	34
11	2.70	303	2.30	161	1.70	46	1.60	34
12	2.70	303	2.30	161	1.70	46	1.60	34
13	2.60	262	2.20	136	1.60	34	1.70	46
14	2.50	224	2.20	136	1.60	34	1.70	46
15	2.50	224	2.10	114	1.60	34	1.70	46
16	2.40	190	2.10	114	1.60	34	1.70	46
17	2.30	161	2.00	94	1.60	34	1.70	46
18	2.30	161	2.00	94	1.60	34	1.70	46
19	2.30	161	2.00	94	1.60	34	1.70	46
20	2.30	161	2.00	94	1.60	34	1.70	46
21	2.30	161	1.90	76	1.70	46	1.70	46
22	2.20	136	1.90	76	1.70	46	1.70	46
23	2.20	136	1.90	76	1.70	46	1.70	46
24	2.20	136	1.90	76	1.70	46	1.70	46
25	2.10	114	1.90	76	1.70	46	1.70	46
26	2.10	114	1.80	60	1.70	46	1.70	46
27	2.00	94	1.80	60	1.70	46	1.70	46
28	3.00	458	1.80	60	1.60	34	1.70	46
29	3.30	652	1.80	60	1.60	34	1.70	46
30	3.20	584	1.80	60	1.60	34	1.70	46
31	3.00	458	1.80	60	.....	.....	1.70	46

MONTHLY Discharge of Willow Creek, near Mcleod, Alta., for 1909.

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
July	946	94	295.1	.....	.....	18,147
August	350	60	133.5	.....	.....	8,209
September	60	34	44.4	.....	.....	2,642
October	46	34	41.4	.....	.....	2,543
The period	.....	.....	.....	.....	.....	31,541

Oldman River, near Cowley, Alta.

This gauging station was established by H. C. Ritchie, on September 15, 1908. It is located at a ford on N.W. $\frac{1}{4}$ section 34, township 7, range 1 west of the 5th Meridian, approximately four miles from Cowley.

The gauge is a plain staff, graduated to feet and hundredths. It is securely fastened to a tree on the right bank of the river and connected with the channel by a ditch. The gauge is referenced by two bench marks, (1) on a tree within 20 feet; elevation 9.63, (2) a stone within 15 feet; elevation 3.32. During the mid-summer months the gauge reader, Mr. Hugh Pettit, moves upstream about one mile. In order that the reading should not be interrupted, a new rod was placed on the right of the river, within 50 yards of the upstream house. On the periodic trips of the hydrographer, both rods were read and rating curves plotted for each section.

The discharge measurements were taken at the lower rod, where a cable has been erected for high water stages. During low water the river is waded at the same section.

The channel is straight for 900 feet above and 250 feet below the cable. The bed is rocky and free from vegetation. The current has considerable velocity but flows smoothly until below the section, when it breaks into a small rapids. Both banks are high and wooded neither being liable to overflow.

Discharge Measurements of Oldman River, near Cowley, Alta., in 1907–8–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1907.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
September 6.....	I. J. Walmsley.....	185	247	3.10	2.55	766
1908.						
August 13.....	H. R. Carscallen.....	177.5	175	2.27	1.835	397
August 19.....	....do.....	161.0	150	2.02	1.695	303
September 15....	H. C. Ritchie.....	115.0	105	1.62	1.50	170
1909.						
May 24.....	H. C. Ritchie.....	193	458	5.69	3.18	2,607
June 12.....	....do.....	196.5	547	6.02	3.60	3,294
July 14.....	....do.....	190	296	3.74	2.40	1,110
July 30.....	....do.....	194	414	5.13	3.05	2,125
August 4.....	....do.....	188	281	3.84	2.35	1,078
August 20.....	....do.....	183	179	2.27	1.79	406
September 2.....	....do.....	157	146	1.99	1.61	290
September 21....	....do.....	149	131	1.76	1.50	230
October 7.....	A. W. Pae.....	136	117	1.63	1.45	190
November 9.....	....do.....	132	113	1.72	1.46	195

DAILY Gauge Height and Discharge of Oldman River, near Cowley, Alta., for 1908.

Day.	April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.10	.....	7.50	.....
2	.....	.....	2.20	.....	7.40	.....
3	.....	.....	2.40	.....	7.00	.....
4	.....	.....	2.50	.....	6.90	.....
5	.....	.....	2.60	.....	6.40	.....
6	.....	.....	3.00	.....	6.00	.....
7	.....	.....	3.70	.....	5.40	.....
8	.....	.....	3.30	.....	5.10	.....
9	.....	.....	3.10	.....	4.90	.....
10	.....	.....	3.80	.....	4.60	.....
11	.....	.....	4.10	.....	4.50	.....
12	.....	.....	4.20	.....	4.30	.....
13	.....	.....	4.30	.....	4.10	.....
14	.....	.....	4.40	.....	4.00	.....
15	.....	.....	4.70	.....	3.90	.....
16	2.00	.....	4.60	.....	3.80	.....
17	2.10	.....	4.50	.....	3.50	2,990
18	2.20	.....	4.00	.....	3.50	2,990
19	2.30	.....	4.00	.....	3.40	2,780
20	2.50	.....	3.70	.....	3.30	2,580
21	2.70	.....	3.60	.....	3.20	2,390
22	2.30	.....	3.70	.....	3.20	2,390
23	2.40	.....	3.50	.....	3.10	2,200
24	2.30	.....	3.60	.....	3.00	2,015
25	2.30	.....	3.70	.....	2.90	1,835
26	2.20	.....	3.70	.....	2.90	1,835
27	2.10	.....	3.80	.....	2.80	1,665
28	2.20	.....	3.80	.....	2.80	1,665
29	2.30	.....	4.00	.....	2.70	1,500
30	2.20	.....	4.50	.....	2.70	1,500
31	.....	.....	6.60	.....	.....	.....

DAILY Gauge Height and Discharge of Oldman River, near Cowley, Alta., for 1908.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.70	1,500	1.90	460	1.60	225	1.50	170
2	2.70	1,500	1.90	460	1.60	225	1.50	170
3	2.60	1,345	1.80	370	1.60	225	1.50	170
4	2.60	1,345	1.80	370	1.60	225	1.50	170
5	2.60	1,345	1.80	370	1.50	170	1.50	170
6	2.60	1,345	1.80	370	1.50	170	1.50	170
7	2.60	1,345	1.80	370	1.50	170	1.50	170
8	2.50	1,200	1.80	370	1.50	170	1.50	170
9	2.50	1,200	1.80	370	1.50	170	1.50	170
10	2.50	1,200	1.80	370	1.50	170	1.50	170
11	2.40	1,060	1.80	370	1.50	170	1.50	170
12	2.40	1,060	1.80	370	1.50	170	1.50	170
13	2.40	1,060	1.80	370	1.50	170	1.50	170
14	2.40	1,060	1.80	370	1.50	170	1.50	170
15	2.40	1,060	1.70	290	1.50	170	1.50	170
16	2.30	920	1.70	290	1.50	170	1.50	170
17	2.30	920	1.70	290	1.50	170	1.50	170
18	2.30	920	1.70	290	1.50	170	1.50	170
19	2.30	920	1.70	290	1.50	170	1.50	170
20	2.20	790	1.70	290	1.50	170	1.50	170
21	2.20	790	1.70	290	1.50	170	1.50	170
22	2.10	670	1.60	225	1.50	170	1.50	170
23	2.10	670	1.60	225	1.50	170	1.50	170
24	2.10	670	1.60	225	1.50	170	1.50	170
25	2.10	670	1.60	225	1.50	170	1.50	170
26	2.00	560	1.60	225	1.60	225	1.60	225
27	2.00	560	1.60	225	1.60	225	1.60	225
28	2.00	560	1.60	225	1.60	225	1.60	225
29	1.90	460	1.60	225	1.60	225	1.60	225
30	1.90	460	1.60	225	1.60	225	1.60	225
31	1.90	460	1.60	225	.....	.....	1.60	225

NOTE.—During high water in early part of June, conditions at the gauging changed, so that the rating table could not be applied previous to June 17th.

DAILY Gauge Height and Discharge of Oldman River, near Cowley, Alta., for 1907.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1.....	1.90	505	4.60	5,720	2.75	1,525	2.85	1,680	1.60	310	1.40	200
2.....	2.00	615	5.50	8,285	2.85	1,680	2.75	1,525	1.60	310	1.40	200
3.....	2.00	615	5.00	6,835	2.85	1,680	2.65	1,380	1.60	310	1.40	200
4.....	1.90	505	4.20	4,690	2.95	1,845	2.55	1,242	1.60	310	1.40	200
5.....	1.90	505	4.10	4,445	3.05	2,020	2.45	1,110	1.60	310	1.40	175
6.....	1.80	410	3.70	3,505	2.95	1,845	2.35	985	1.60	310	1.40	175
7.....	1.80	410	3.50	3,080	3.05	2,020	2.25	870	1.60	310	1.40	175
8.....	1.80	410	3.40	2,875	2.95	1,845	2.25	870	1.50	250	1.40	175
9.....	1.70	330	3.10	2,290	2.85	1,680	2.15	762	1.50	250	1.40	175
10.....	1.70	330	3.20	2,480	2.85	1,680	2.15	762	1.50	250	1.40	175
11.....	1.60	265	3.60	3,290	2.75	1,525	2.05	662	1.50	250	1.40	175
12.....	1.70	330	3.60	3,290	2.75	1,525	2.05	662	1.50	250	1.40	175
13.....	1.70	330	3.75	3,545	2.75	1,525	2.05	662	1.50	250	1.40	175
14.....	1.80	410	3.85	3,795	2.65	1,380	1.95	572	1.50	250	1.40	175
15.....	1.80	410	3.95	4,050	2.55	1,242	1.95	572	1.50	250	1.40	175
16.....	1.80	410	4.05	4,310	2.55	1,242	1.95	572	1.50	250	1.40	175
17.....	1.70	330	4.05	4,310	2.45	1,110	1.95	572	1.50	250	1.40	175
18.....	1.70	330	3.85	3,795	2.35	985	1.85	490	1.50	250	1.40	175
19.....	1.60	265	3.75	3,545	2.25	870	1.85	490	1.50	250	1.40	175
20.....	2.00	615	3.65	3,300	2.25	870	1.85	490	1.50	250	1.40	175
21.....	2.20	850	3.45	2,827	2.25	870	1.80	450	1.50	250	1.40	175
22.....	2.40	1,110	3.35	2,607	2.15	762	1.80	450	1.50	250	1.40	175
23.....	2.60	1,420	3.25	2,400	2.15	762	1.70	375	1.50	250	1.40	175
24.....	3.20	2,480	3.15	2,205	2.05	662	1.70	375	1.40	200	1.40	175
25.....	3.60	3,290	3.05	2,020	.....	.....	1.70	375	1.40	200	1.40	175
26.....	3.90	3,965	2.95	1,845	.....	.....	1.70	375	1.40	200	1.40	175
27.....	4.00	4,205	2.85	1,680	.....	.....	1.70	375	1.40	200	1.40	175
28.....	4.20	4,690	2.75	1,525	.....	.....	1.70	375	1.40	200	1.40	175
29.....	4.20	4,690	2.75	1,525	.....	.....	1.70	375	1.40	200	1.40	175
30.....	4.20	4,690	2.75	1,525	.....	.....	1.70	375	1.40	200	1.40	175
31.....	4.20	4,690	.....	.....	.....	.....	1.60	310	.....	.....	1.40	175

NOTE.—From June 13th to October 5th, the observer read the upper gauge. During the remainder of the season he read the lower gauge.

MONTHLY Discharge of Oldman River, near Cowley, Alta., for 1908–9.

[Drainage area, 798 square miles.]

	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
June (17-30)	2,990	1,500	2,166.8	2.715	1.413	60,168
July	1,500	460	955.6	1.197	1.380	58,760
August	460	225	311.0	0.389	0.448	19,121
September	225	170	186.5	0.233	0.260	11,097
October	225	170	180.6	0.226	0.261	11,107
The period						160,253
1909.						
May	4,690	265	1,432.6	1.795	2.069	88,087
June	8,285	1,525	3,386.5	4.244	4.735	201,508
July (1-24)	2,020	662	1,381.2	1.731	1.543	65,752
August	1,680	310	681.9	0.855	0.986	41,931
September	310	200	252.3	0.316	0.353	15,015
October	200	175	178.2	0.223	0.257	10,958
The period						423,251

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Oldman River, at the traffic bridge on Sec. 26, Tp. 7, Range 30, west of the 4th Meridian, near Pincher, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Sec.-ft.*
July 15	H. C. Ritchie	287	829	2,672
1909.				
July 15	H. C. Ritchie	287.5	771	2,830
August 6	do	287.5	753	2,672

CROWSNEST RIVER, NEAR LUNDBRECK, ALTA.

A gauge station was established on the Crowsnest River by P. M. Sauder, on September 7th, 1907. It is located at the traffic bridge, north of Lundbreck on Section 26, Tp. 7, Range 2, west of the 5th Meridian.

The gauge is a plain staff, graduated to feet and hundreds. It is placed down stream from the bridge, about 20 yards and securely fastened to a post, several feet in from the water's edge. It is connected to the channel by a ditch which is kept open by the hydrographer on his periodic trips. The gauge is referenced by a bench mark, located on a tree about 30 yards back from the left bank; elevation 9.74.

The channel is straight for 250 feet above the bridge and 1,500 feet below. The current is very swift and owing to the rocky bottom, considerable amount of rough water is encountered. The right bank is high and wooded in a few places. The left bank is low and wooded and liable to overflow in excessive flood stage. The river flows in one channel over a bed of rock, free from vegetation.

The discharge measurements are taken from the bridge. The initial point for soundings is marked zero on the lower cord of the downstream side of the bridge. Intermediate points are marked every five feet.

The gauge was read once each day by J. G. Short, and a series of discharge measurements were made during 1908 and 1909, but a satisfactory rating table has not yet been obtained. None of the results are published with this report, but it is expected that by the end of 1910, a satisfactory rating table will be established and will if possible be applied to the records for 1908 and 1909 as well as those of 1910.

Todd Creek near Cowley, Alta.

A gauging station was established on this creek, on August 3rd, 1909, by H. C. Ritchie. It is situated within 20 feet of Mr. Cecil Elton's house on Section 19, Tp. 8, Range 1, west of the 5th Meridian.

The gauge consists of a plain staff, graduated to feet and hundredths, driven into the bed of the stream and securely braced to the left bank. The gauge is referenced by a bench mark about ten feet from it, on the left bank. The bench mark is established on a stake driven into the ground; elevation 6.70 above the zero of the gauge.

The channel is straight for about 55 feet above and 60 feet below the gauge. The water is inclined to be swift at high stages but quite sluggish at low. The bed lies in one channel and is composed of clean sand and gravel. The right bank is high and wooded and liable to overflow in excessive flood. The left bank is wooded and liable to overflow for about 5 feet from edge, when it rises abruptly to about six feet.

During high stages the discharge measurements are taken from a private traffic bridge, situated about 200 yards below the gauge and during low water, measurements are taken at a wading section, at the gauge. The initial point is marked on a tree situated on the left bank.

The gauge is read daily by Mr. Cecil Elton.

Discharge Measurements of Todd Creek near Cowley, Alta., 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 20	H. R. Carscallen	19.3	13.4	0.76		10.1
1909.						
June 14	H. C. Ritchie	23.5	35	2.23		77.9
July 14	do	16.3	18.2	1.32		24.0
August 3	do	20.8	35	0.98	3.20	34.4
August 19	do	20.1	28.3	0.50	2.89	14.2
September 6	do	20.9	26.6	0.35	2.79	9.32
September 21	do	20.0	25.6	0.30	2.74	7.64
November 9	A. W. Pae	20.4	23.2	0.29	2.70	6.68

Crowsnest Mountain from Coleman, Alta.

DAILY Gauge Height and Discharge of Todd Creek, near Cowley, Alta., for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	3.20	34.40	2.80	9.75	2.70	6.68
2	3.20	34.40	2.80	9.75	2.70	6.68
3	3.20	34.40	2.825	10.90	2.70	6.68
4	3.20	34.40	2.80	9.75	2.70	6.68
5	3.15	30.70	2.795	9.60	2.70	6.68
6	3.10	27.00	2.785	9.29	2.70	6.68
7	3.10	27.00	2.78	9.14	2.70	6.68
8	3.10	27.00	2.745	8.06	2.69	6.30
9	3.10	27.00	2.73	7.60	2.69	6.30
10	3.10	27.00	2.70	6.68	2.71	6.99
11	3.00	20.20	2.715	7.14	2.71	6.99
12	3.00	20.20	2.72	7.29	2.70	6.68
13	3.00	20.20	2.75	8.21	2.70	6.68
14	3.00	20.20	2.725	7.45	2.70	6.68
15	2.95	17.40	2.70	6.68	2.70	6.68
16	2.90	15.00	2.70	6.68	2.70	6.68
17	2.90	15.00	2.71	6.99	2.71	6.99
18	2.90	15.00	2.725	7.45	2.71	6.99
19	2.90	15.00	2.71	6.99	2.71	6.99
20	2.90	15.00	2.70	6.68	2.71	6.99
21	2.90	15.00	2.715	7.14	2.70	6.68
22	2.90	15.00	2.725	7.45	2.70	6.68
23	2.90	15.00	2.715	7.14	2.70	6.68
24	2.90	15.00	2.705	6.83	2.70	6.68
25	2.85	12.10	2.70	6.68	2.70	6.68
26	2.85	12.10	2.70	6.68	2.70	6.68
27	2.85	12.10	2.70	6.68	2.70	6.68
28	2.85	12.10	2.70	6.68	2.70	6.68
29	2.85	12.10	2.705	6.83	2.71	6.99
30	2.85	12.10	2.71	6.99	2.72	7.29
31	2.80	9.75	.....	.....	2.70	6.68

MONTHLY Discharge of Todd Creek, near Cowley, Alta., for 1909.

[Drainage area, 61 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
August	34.4	9.75	19.8	0.325	0.375	1,219
September	10.9	6.68	7.7	0.126	0.141	459
October	7.29	6.30	6.7	0.110	0.127	414
The period	.....	.....	.....	.....	.....	2,092

COW CREEK, NEAR COWLEY, ALTA.

The gauging station on Cow Creek was established by H. C. Ritchie on August 2nd, 1909. It is situated on the farm of Mr. Abel Brux, Section 12, Tp. 8, Range 2, west of the 5th Meridian.

The gauge consists of a plain staff, graduated to feet and hundredths, driven into the bed of the stream and firmly braced by scantling, fastened to the right bank. The gauge is referenced by two bench marks: (1) a stone on left bank, about 30 feet above gauge, elevation 6.03; (2) a hub driven into the ground on the left bank, about 10 feet below gauge, elevation 9.09.

This stream has a very crooked channel. For about 40 feet above the gauge and 54 feet below, the stream is straight. The bed is composed of gravel and sand, free from vegetation, with a few boulders which cause small rapids above and below the gauge. Both banks are about three feet high, wooded and liable to overflow at flood stages.

The discharge measurements are taken from a foot bridge about 10 feet below the gauge: the initial point being marked zero on the left end of the bridge. During high stages the flow is inclined to be swift but quite sluggish at low water.

The daily gauge height was read by Abel Brux, whose house is within 300 feet of the gauge.

Discharge Measurements of Cow Creek, near Cowley, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft per sec.*	*Feet.*	*Sec.-ft.*
August 20	H. R. Carscallen	6.5	4.7	0.45	.....	2.12
1909.						
June 14	H. C. Ritchie	11.0	20.7	1.59	.....	32.8
July 14	....do	11.0	15.5	0.61	.....	9.50
August 2	....do	13.0	22	1.04	2.90	23.1
August 19	....do	13.0	18	0.45	2.60	8.15
September 6	....do	13.0	16.5	0.25	2.45	4.20
September 21	....do	13.0	16.0	0.23	2.38	3.78
October 7	A. W. Pae	13.0	14.9	0.17	2.35	2.57
November 9	....do	12.5	13.7	0.26	2.36	3.55

Daily Gauge Height and Discharge of Cow Creek, near Cowley, Alta., for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.9	23.1	2.6	8.15	2.4	3.30
2	2.9	23.1	2.6	8.15	2.4	3.30
3	2.9	23.1	2.6	8.15	2.4	3.30
4	2.85	20.4	2.6	8.15	2.4	3.30
5	2.85	20.4	2.6	8.15	2.4	3.30
6	2.85	20.4	2.5	5.30	2.4	3.30
7	2.85	20.4	2.5	5.30	2.37	2.86
8	2.85	20.4	2.5	5.30	2.4	3.30
9	2.7	12.4	2.5	5.30	2.4	3.30
10	2.7	12.4	2.5	5.30	2.4	3.30
11	2.7	12.4	2.5	5.30	2.45	4.30
12	2.7	12.4	2.5	5.30	2.45	4.30
13	2.7	12.4	2.4	3.30	2.45	4.30
14	2.7	12.4	2.4	3.30	2.4	3.30
15	2.6	8.15	2.4	3.30	2.4	3.30
16	2.6	8.15	2.4	3.30	2.4	3.30
17	2.6	8.15	2.4	3.30	2.4	3.30
18	2.6	8.15	2.4	3.30	2.45	4.30
19	2.6	8.15	2.4	3.30	2.45	4.30
20	2.6	8.15	2.4	3.30	2.45	4.30
21	2.6	8.15	2.4	3.30	2.4	3.30
22	2.6	8.15	2.4	3.30	2.4	3.30
23	2.6	8.15	2.4	3.30	2.4	3.30
24	2.6	8.15	2.4	3.30	2.4	3.30
25	2.6	8.15	2.4	3.30	2.4	3.30
26	2.6	8.15	2.4	3.30	2.4	3.30
27	2.6	8.15	2.4	3.30	2.4	3.30
28	2.6	8.15	2.4	3.30	2.4	3.30
29	2.6	8.15	2.4	3.30	2.45	4.30
30	2.6	8.15	2.45	4.30	2.45	4.30
31	2.6	8.15			2.4	3.30

Monthly Discharge of Cow Creek, near Cowley, Alta., for 1909.

[Drainage area, 36.4 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
August	23.1	8.15	12.39	0.340	0.392	762
September	8.15	3.30	4.61	0.126	0.141	274
October	4.30	3.30	3.54	0.097	0.112	218
The period						1,254

Connely Creek, near Lundbreck, Alta.

A regular gauging station was established on Connely Creek, by H. C. Ritchie on July 31st, 1909. This station is located on the trail which crosses the creek about 100 feet above its mouth.

The gauge which consists of a plain staff, graduated to feet and hundredths, is securely fastened to a tree, on the left bank of the stream. The gauge is referenced by a bench mark, consisting of a spike driven into a post about 15 feet from the gauge; elevation 7.42 above zero of the gauge.

This stream has a very crooked channel; it being very difficult to find a place suitable for gauging. For about 20 feet below and above the gauge, the stream is practically straight, with very little slope. The bed is of gravel and sand, free from vegetation. The right bank is low and liable to overflow at high stages of the stream; the left bank is comparatively high. Both banks are thickly wooded along the edge.

During high stages, discharge measurements are made from a foot bridge near the gauge; the initial point being a stake on the right bank, to which the zero of the tape is fastened. During low stages the velocity at this point is insufficient for accurate results and a wading section is taken about 200 feet upstream.

The daily gauge height was read by N. V. Holway, whose house is within 200 feet of the gauge.

Discharge Measurements of Connely Creek, near Lundbreck, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 20.	H. R. Casreallen	2.8	0.9	0.96		0.87
1909.						
June 14	H. C. Ritchie	11.5	9.7	1.30		12.66
July 13	do	6.9	2.3	1.63		3.69
July 29	do	12.2	12.8	1.52	2.94	19.5
July 31	do	12.2	11	0.97	2.79	10.8
August 19	do	11.5	7.7	0.31	2.60	2.44
September 4	do	8.2	8.2	0.23	2.55	1.92
September 20	do	8.4	2	0.49	2.49	.97
October 9	A. W. Pae	7.7	1.9	0.34	2.44	.65
November 10	do	8.3	4.4	0.30	2.50	1.32

DAILY Gauge Height and Discharge of Connely Creek, near Lundbreck, Alta., for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.7	6.3	2.6	2.45	2.5	1.2
2	2.7	6.3	2.6	2.45	2.5	1.2
3	2.7	6.3	2.6	2.45	2.5	1.2
4	2.7	6.3	2.6	2.45	2.5	1.2
5	2.7	6.3	2.6	2.45	2.45	.85
6	2.7	6.3	2.6	2.45	2.45	.85
7	2.7	6.3	2.6	2.45	2.45	.85
8	2.7	6.3	2.6	2.45	2.45	.85
9	2.7	6.3	2.6	2.45	2.45	.85
10	2.7	6.3	2.6	2.45	2.5	1.2
11	2.7	6.3	2.6	2.45	2.5	1.2
12	2.7	6.3	2.6	2.45	2.5	1.2
13	2.7	6.3	2.6	2.45	2.5	1.2
14	2.7	6.3	2.6	2.45	2.5	1.2
15	2.7	6.3	2.6	2.45	2.5	1.2
16	2.7	6.3	2.6	2.45	2.5	1.2
17	2.7	6.3	2.6	2.45	2.5	1.2
18	2.7	6.3	2.5	1.2	2.5	1.2
19	2.6	2.45	2.5	1.2	2.5	1.2
20	2.6	2.45	2.5	1.2	2.5	1.2
21	2.6	2.45	2.5	1.2	2.5	1.2
22	2.6	2.45	2.5	1.2	2.5	1.2
23	2.6	2.45	2.5	1.2	2.5	1.2
24	2.6	2.45	2.5	1.2	2.5	1.2
25	2.6	2.45	2.5	1.2	2.5	1.2
26	2.6	2.45	2.5	1.2	2.5	1.2
27	2.6	2.45	2.5	1.2	2.5	1.2
28	2.6	2.45	2.5	1.2	2.5	1.2
29	2.6	2.45	2.5	1.2	2.5	1.2
30	2.6	2.45	2.5	1.2	2.5	1.2
31	2.6	2.45			2.5	1.2

MONTHLY Discharge of Connely Creek, near Lundbreck, Alta., for 1909.

[Drainage area, 17 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total, in acre-feet.
August	6.30	2.45	1.685	0.275	0.317	288
September	2.45	1.20	1.908	0.112	0.125	113
October	1.20	0.85	1.143	0.067	0.077	70
The period						471

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Crownest River and its Tributaries, in 1908–9.

Date.	Stream.	Locality.	Hydrographer.	Discharge.
1908.				*Sec.-ft.*
Aug. 14	Rock Creek	N.E. 20-7-2-5	H. R Carscallen	4.3
Aug. 15	Gold Creek	At Frank below intake of water-works.	do	29.
Aug. 15	York Creek	Near mouth	do	10.1
Aug. 15	McGillivray Creek	Near mouth	do	3.8
Aug. 17	Nez-perce Creek	At Coleman	do	0.5
Aug. 17	Blairmore Creek	Near mouth	do	5.5
Aug. 17	Lyon Creek	Near mouth	do	0.7
Aug. 18	Byron Creek	Near mouth	do	3.9
1909.				
July 29	Crownest River	At traffic bridge on N.E. 29-7-1-5.	H. C. Ritchie	1958
Sept. 6	do	do	do	240
Oct. 8	do	do	A. W. Pae	166
Oct. 11	Rock Creek	N.E. 20-7-2-5	do	3.1
Oct. 11	Byron Creek	S.W. 16-7-3-5	do	3.8
Oct. 12	Gold Creek	At Frank, below intake of water works.	do	20.3
Oct. 12	do	Near Frank, above intake of water works.	do	24.0
Oct. 13	Lyon Creek	N.E. 26-7-4-5	do	1.2
Oct. 13	do	At mouth	do	Dry.
Oct. 13	Blairmore Creek	Sec. 10-8-4-5	do	3.6
Oct. 14	York Creek	N.W. 34-7-4-5	do	6.1
Oct. 15	Allison Creek	Sec. 11-8-5-5	do	13.
Oct. 15	McGillivray Creek	Sec. 7-8-4-5	do	2.7
Oct. 16	Crownest River	Sec. 7-8-4-5, above mouth of McGillivray Creek.	do	69.
Nov. 10	do	N. E. 29-7-1-5	do	150.
Nov. 11	Gold Creek	At Frank, below intake of water-works.	do	16.
Nov. 12	York Creek	N.W. 34-7-4-5	do	4.9
Nov. 12	Blairmore Creek	Sec. 10-8-4-5	do	1.9
Nov. 12	Lyon Creek	N.E. 26-7-4-5	do	2.5
Nov. 13	Crownest River	Sec. 7-8-4-5, above mouth of McGillivray Creek.	do	45.
Nov. 13	McGillivray Creek	Sec. 7-8-4-5	do	2.8

South Fork River, near Cowley, Alta.

This gauging station was established by H. C. Ritchie on August 5th, 1909. It is located at the traffic bridge, between Pincher Creek and Cowley.

The gauge rod which consists of a plain staff graduated to feet and hundredths was securely fastened to the west side of the second pier from the left bank of the river. It was referred to a bench mark placed on top of abutment at the north west corner of the bridge. On account of the section changing during floods, the gauge was removed to Mr. Buchanan's ranch, about one half mile downstream, S.W. $\frac{1}{4}$ Sec. 2, Tp. 7, Range 1, west of the 5th Meridian. It is referred in its new position to a bench mark placed on a tree within 20 feet of the gauge; elevation 8.33.

The river above the bridge is separated into two channels by a low rocky island, which is submerged in very high water. These two channels come together about fifty feet above the bridge but is divided again into three by the piers of the bridge, which form gravel bars for some distance down stream. The bed of the river is quite rough and free from vegetation. The current is very swift, except through the east channel, where the water becomes

dead at low stages. The left bank is low and rocky, without vegetation. The right bank is high and rocky but liable to be overflowed below the bridge in high stages.

Discharge measurements are taken from the downstream side of the bridge in both low and high water. The initial point for soundings is marked zero and is in line with abutment on left bank. Owing to rough state of bed, considerable care has to be exercised in determining area of section.

The gauge was read daily by Mr. G. W. Buchanan, who lives within two minutes walk from its present location.

DISCHARGE Measurements of Southfork River, near Cowley, Alta., 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 10	H C. Ritchie	204.7	415	3.20	.....	1,328
July 18	....do	137.3	226	3.81	.....	859
August 12	H. R. Carscallen	142.0	198	2.80	.....	359
August 21	....do	137.5	183	2.48	.....	283
September 17	P. M. Sauder	103.0	89	1.70	.....	152
1909.						
July 12	H. C. Ritchie	202.5	397	4.00	.....	1,589
August 5	....do	203.5	345	2.84	2.50	979
August 18	....do	106.5	229	2.66	1.76	611
September 7	....do	93.0	179	1.73	1.45	310
September 23	....do	89.0	164	1.47	1.33	242
October 6	A. W. Pae	86.5	156	1.35	1.24	211

DAILY Gauge Height and Discharge of South Fork River, near Cowley, Alta., for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.5	350	1.3	230
2	.....	.....	1.5	350	1.3	230
3	.....	.....	1.5	350	1.3	230
4	.....	.....	1.5	350	1.3	230
5	2.5	980	1.5	350	1.2	200
6	2.4	928	1.5	350	1.2	200
7	2.3	876	1.4	278	1.2	200
8	2.3	876	1.4	278	1.2	200
9	2.2	825	1.4	278	1.2	200
10	2.1	775	1.4	278	1.2	200
11	2.1	775	1.4	278	1.2	200
12	2.0	725	1.4	278	1.2	200
13	2.0	725	1.4	278	1.2	200
14	2.0	725	1.4	278	1.2	200
15	1.9	676	1.4	278	1.2	200
16	1.9	676	1.4	278	1.2	200
17	1.8	628	1.4	278	1.2	200
18	1.8	628	1.4	278	1.2	200
19	1.8	628	1.4	278	1.2	200
20	1.7	585	1.3	230	1.2	200
21	1.7	585	1.3	230	1.2	200
22	1.7*	540	1.3	230	1.2	200
23	1.7	540	1.3	230	1.2	200
24	1.6	440	1.3	230	1.2	200
25	1.6	440	1.3	230	1.2	200
26	1.6	440	1.3	230	1.2	200
27	1.6	440	1.3	230	1.2	200
28	1.6	440	1.3	230	1.2	200
29	1.6	440	1.3	230	1.2	200
30	1.5	350	1.3	230	1.2	200
31	1.5	350	.....	.....	1.2	200

*Gauge was moved from traffic bridge to Buchanan's Ranche on August 22nd.

MONTHLY Discharge of South Fork River, near Cowley, Alta., for 1909.

[Drainage area, 385 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
August (5-31)	980	350	631	1.639	1.646	33,790
September	350	230	274.8	0.713	0.795	16,352
October	230	200	203.9	0.529	0.610	12,535
The period	.....	.....	.....	.....	.....	62,677

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Tributaries of South Fork River, in 1909.

Date.	Stream.	Locality.	Hydrographer.	Discharge.
				Sec.-ft.
October 5	Mill Creek	S.E. 13-6-2-5	A. W. Pae	31.6
November 8	do	do	do	25.7
October 5	Canyon Creek	N.W. 24-6-2-5	do	3.75
November 8	do	do	do	4.13

Pincher Creek at Pincher Creek, Alta..

Under the direction of Mr. Arthur O. Wheeler a regular gauging station was established on this creek at the town of Pincher Creek in the spring of 1898. Again on August the 13th, 1906, Mr. J. F. Hamilton replaced the old gauge by a new one. Owing to local improvements the gauge has since been changed but the station remains practically in the same place as established under the direction of Mr. Wheeler.

The present gauge consists of a plain staff, graduated to tenths and hundredths of feet, securely fastened to the cribbing on the right bank of the river about 20 feet below the traffic bridge. It is referred to bench marks placed on the north abutment and a low pile underneath the bridge at the left bank; elevations, 7.75 and 3.40 feet respectively above zero of the gauge.

During high water, discharge measurements were made from the downstream side of the bridge. At low stages, wading sections are used at the bridge and later in the season at a point about a mile upstream.

At the regular station the channel is straight for about half a mile above and 200 yards below. The bed is very rocky and is free from vegetation. Both banks are high, the right being well cribbed; neither is liable to overflow. At the wading section above, the channel is straight for about 100 feet above and below the section. The stream flows comparatively swift over a hard clay bed. The right bank is low and liable to overflow; the left bank is a high clay cut bank.

Owing to continued local improvements being made on the stream it has been impossible to procure a permanent cross-section. On this account, a discharge table of sufficient accuracy has not been obtained. The gauge was read daily 1908 and 1909 by P. Bertles.

DISCHARGE Measurements of Pincher Creek at Pincher Creek, Alta., in 1906–7–8–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Discharge.
1906.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 13	J. F. Hamilton	24	24.0	0.28	.....	6.7
1907.						
July 6	I. J. Walmsley	50	80.0	2.10	1.50	169
August 16	....do	28	24.2	0.69	0.70	16.8
September 5	....do	30	28.5	1.20	0.80	34
1908.						
July 9	H. C. Ritchie	64.5	116	0.54	1.27	62.2
August 12	H. R. Carscallen	24	35	0.47	0.94	16.5
August 22	....do	26	13.5	0.88	0.88	11.9
September 8	H. C. Ritchie	12	5.9	0.65	0.69	3.82
September 18	P. M. Sauder	15	11.7	0.54	0.90	6.30
1909.						
May 25	H. C. Ritchie	84	190	3.78	3.275	719
June 10	....do	65.6	98	3.62	3.90	355
June 18	....do	64.3	81.6	3.07	3.75	251
July 12	....do	60.5	43.3	1.95	1.81	84.6
July 28	....do	82	174	7.21	3.65	1,258
August 7	....do	34	29	2.10	1.89	60.8
August 18	....do	30.5	17.7	1.56	1.55	27.6
September 1	....do	18.3	8.7	1.56	1.40	13.5
September 18	....do	18.5	8.2	1.41	1.37	11.5
October 6	A. W. Pae	13.3	5.9	1.13	1.28	6.73
October 19	....do	15.2	6.2	1.12	1.31	6.97
November 6	....do	14	7	1.12	1.38	7.88

Daily Gauge Height, in feet, of Pincher Creek at Pincher Creek, Alta., for 1908.

Day.	April.	May.	June.	July.	August.	Sept.	Oct.
1	0.7	1.0	5.5	1.4	1.0	0.8	0.9
2	0.7	0.9	3.5	1.4	1.0	0.7	1.0
3	1.6	0.9	3.6	1.4	1.0	0.7	1.0
4	1.0	0.9	7.7	1.4	1.0	0.7	1.05
5	0.8	0.8	8.6	1.45	1.0	0.7	1.1
6	0.7	0.9	6.5	1.45	1.0	0.7	1.1
7	0.7	1.0	4.7	1.5	1.0	0.7	1.1
8	0.7	1.1	2.6	1.4	1.0	0.7	1.1
9	0.8	1.1	2.4	1.4	1.0	0.7	1.1
10	1.0	1.1	2.4	1.3	1.0	0.7	1.1
11	1.0	1.6	2.2	1.3	1.0	0.7	1.1
12	1.0	2.7	1.8	1.3	1.0	0.7	0.9
13	1.0	2.5	1.6	1.4	1.0	0.7	0.9
14	0.9	2.8	1.6	1.5	1.0	0.7	1.0
15	0.9	2.3	1.5	1.4	1.0	0.6	1.2
16	0.8	2.5	1.4	1.3	1.0	0.6	1.2
17	0.8	2.0	1.4	1.3	0.9	0.9	1.2
18	1.1	2.0	1.3	1.3	0.9	0.9	1.2
19	1.1	1.8	1.2	1.3	0.9	0.9	1.1
20	1.1	1.7	1.2	1.3	1.0	0.9	1.1
21	1.0	1.7	1.2	1.2	0.9	0.8	1.2
22	1.0	1.6	1.2	1.2	0.8	0.8	1.2
23	1.1	1.6	1.2	1.2	0.8	1.2	1.1
24	1.0	1.5	1.3	1.2	0.8	1.2	1.1
25	1.0	1.6	1.3	1.2	0.8	1.2	0.9
26	1.0	2.5	1.3	1.2	0.8	1.2	0.9
27	1.0	3.6	1.3	1.0	0.8	1.2	0.9
28	1.1	2.6	1.3	1.0	0.8	1.1	0.9
29	1.1	2.6	1.3	1.0	0.8	1.1	1.0
30	1.0	2.7	1.3	1.0	0.8	1.0	1.0
31	.....	3.1	.....	1.0	0.8	.....	1.0

DAILY Gauge Height, in feet, of Pincher Creek, at Pincher Creek, Alta., for 1909.

Day.	April.	May.	June.	July.	August.	Sept.	Oct.
1	1.8	1.2	4.3	3.3	2.3	1.4	1.3
2	1.8	3.5	4.1	3.3	2.1	1.4	1.3
3	1.6	4.0	4.0	3.2	2.0	1.4	1.3
4	1.4	3.3	4.0	3.2	1.9	1.4	1.3
5	1.2	3.5	4.0	4.0	1.8	1.4	1.3
6	1.1	2.6	3.7	4.0	1.6	1.4	1.2
7	1.0	2.4	3.7	4.0	1.4	1.4	1.2
8	1.3	2.2	4.2	3.8	1.4	1.4	1.2
9	1.4	2.2	4.0	3.6	1.4	1.4	1.2
10	1.0	2.0	3.7	3.4	1.5	1.4	1.2
11	1.2	2.0	3.8	3.0	1.7	1.4	1.2
12	1.1	2.2	3.8	1.8	1.6	1.4	1.3
13	1.0	2.0	3.8	1.8	1.6	1.4	1.3
14	1.0	2.3	3.8	1.7	1.6	1.4	1.3
15	1.1	2.4	3.8	1.7	1.6	1.4	1.3
16	1.1	1.9	3.8	1.6	1.6	1.4	1.3
17	1.2	2.0	3.8	1.6	1.6	1.4	1.3
18	1.1	2.3	3.8	1.6	1.6	1.4	1.4
19	1.0	2.1	3.8	1.5	1.5	1.4	1.4
20	1.0	2.3	4.4	1.5	1.5	1.4	1.4
21	1.1	2.4	4.1	1.4	1.5	1.4	1.4
22	1.1	2.6	4.1	1.3	1.5	1.4	1.4
23	1.0	3.7	4.0	1.2	1.5	1.4	1.4
24	1.3	3.3	3.9	1.0	1.4	1.4	1.4
25	2.0	3.7	3.7	1.0	1.4	1.4	1.3
26	1.6	3.6	3.7	1.7	1.4	1.4	1.3
27	1.6	3.4	3.5	4.1	1.4	1.4	1.3
28	1.4	3.0	3.5	2.7	1.4	1.4	1.3
29	1.3	3.0	3.3	2.7	1.4	1.3	1.3
30	1.2	3.1	3.3	2.6	1.4	1.3	1.3
31	.....	4.0	.....	2.4	1.4	.....	1.3

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Pincher Creek, at the ford on Sec. 7, Tp. 7, Range 28 west of the 4th Meridian, in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Sec.-ft.*
August... 22	H. R. Carscallen	21	11.06	12.07
1909.				
October 20	A. W. Pae	11.4	12.62	8.42

Waterton River, at Waterton Mills, Alta.

This station was established by P. M. Sauder on August 26th, 1908. It is located about 250 feet downstream, from where the river leaves the lake.

The gauge which is a plain staff, graduated to feet and hundredths, is located in a box cribbing, on the right bank of the river. It is referred to a bench mark, placed on the root of a tree, six feet distant; elevation 9 69 above the zero of the gauge.

The channel, which is very wide, is straight for 300 feet above the section and 100 feet below.

During low water the bulk of the stream flows through a deep and narrow channel in the middle of the river. The bed of the stream is rough and rocky. There is a good flow at all stages, but not swift. Both banks are quite high and wooded and no danger of an overflow.

The discharge measurements are taken from a car suspended from a cable. During low water the stream is waded most of the way across. The deep channel in the middle has to be measured from the car at all stages. The measurements at this station are affected by the wind which blows quite frequently. The cross-section is so constituted, that, when a rating curve has been obtained, it will not be likely to change.

The gauge was read daily by H. H. Hanson whose house is situated about 600 feet from the gauge.

Discharge Measurements of Waterton River, at Waterton Mills, Alta., in 1906-7-8-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Discharge.
1906.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
September 10....	J. F. Hamilton.....	289	220	2.01	.....	442
1907.						
July 20.....	I. J. Walmsley.....	293	619	3.51	4.10	2.177
1908.						
September 5.....	H. C. Ritchie.....	227	159	1.29	2.50	205
September 18....	H. R. Carscallen.....	210.5	172	1.38	2.49	238
1909.						
May 28.....	H. C. Ritchie.....	298	766	4.99	4.70	3,822
June 23.....	....do.....	300	890	5.52	5.10	4,918
July 23.....	....do.....	288	388	2.66	3.39	1,030
August 14.....	....do.....	286	304	2 12	3.09	645
August 28.....	....do.....	230	228	1.64	2.80	373
September 16....	....do.....	228	205	1.52	2.65	312
October 2.....	A. W. Pae.....	215	185	1.35	2.51	251
November 3.....	....do.....	180	160	1.46	2.49	234

DAILY Gauge Height and Discharge of Waterton River, at Waterton Mills, Alta., for 1908.

Day.	April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			3.6		4.7	
2			3.5		4.8	
3			3.5		5.1	
4			3.5		6.5	
5			3.6		8.2	
6			3.7		*a*	
7			3.9		8.2	
8			3.9		7.4	
9			4.0		6.3	
10			4.0		6.0	7,750
11			4.1		5.8	7,073
12	2.3		4.1		5.6	6,414
13	2.4		4.2		5.4	5,790
14	2.6		4.3		5.2	5,200
15	2.7		4.2		5.0	4,640
16	2.9		4.1		4.9	4,365
17	3.0		4.0		4.7	3,822
18	3.2		3.9		4.5	3,295
19	3.4		3.9		4.3	2,800
20	3.5		3.8		4.3	2,800
21	3.7		3.7		4.2	2,560
22	3.9		3.8		4.2	2,560
23	4.0		3.8		4.2	2,560
24	4.1		3.9		4.1	2,325
25	4.2		3.9		4.1	2,325
26	3.9		4.0		4.2	2,560
27	3.7		4.1		4.2	2,560
28	3.6		4.2		4.3	2,800
29	3.6		4.3		4.4	3,040
30	3.5		4.4		4.3	2,800
31			4.6			

NOTE.—Conditions at the gauging station changed during the flood in the early part of June, and the rating table does not apply until after the flood. (*a*) Maximum reached by the flood occurred on this date. The maximum gauge height was over 12 ft.

DAILY Gauge Height and Discharge of Waterton River, at Waterton Mills, Alta., for 1908—*Concluded.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge heighgt.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	4.2	2,560	3.1	660	2.7	335	2.6	280
2	4.3	2,800	3.0	555	2.6	280	2.7	335
3	4.4	3,040	3 0	555	2.6	280	2.7	335
4	4.4	3,040	3.0	555	2.6	280	2.7	335
5	4.3	2,800	3.0	555	2.5	235	2.7	335
6	4.3	2,800	3.0	555	2.5	235	2.7	335
7	4.2	2,560	3.0	555	2.5	235	2.8	395
8	4.2	2,560	3.0	555	2.5	235	2.8	395
9	4.1	2,325	3.1	660	2.5	235	2.8	395
10	4.0	2,105	3.1	660	2.5	235	2.8	395
11	4.1	2,325	3.0	555	2.4	200	2.9	465
12	4.1	2,325	3.1	660	2.4	200	2.9	465
13	4.0	2,105	3.2	780	2.4	200	2.9	465
14	4.0	2,105	3.1	660	2.4	200	3.0	555
15	3.9	1,900	3.0	555	2.4	200	3.0	555
16	3.9	1,900	2.9	465	2.4	200	3.0	555
17	3.8	1,700	2.8	395	2.4	200	3.1	660
18	3.8	1,700	2.8	395	2.4	200	.....	.....
19	3.7	1,520	2.8	395	2.4	200	.....	.....
20	3.9	1,900	2.8	395	2.4	200	.....	.....
21	3.8	1,700	2.8	395	2.4	200	.....	.....
22	3.7	1,520	2.8	395	2.4	200	.....	.....
23	3.6	1,345	2.8	395	2.5	235	.....	.....
24	3.5	1,190	2.8	395	2.5	235	.....	.....
25	3.4	1,040	2.7	335	2.5	235	.....	.....
26	3.3	905	2.7	335	2.5	235	.....	.....
27	3.2	780	2.7	335	2.6	280	.....	.....
28	3.2	780	2.7	335	2.6	280	.....	.....
29	3.2	780	2.7	335	2.6	280	.....	.....
30	3.1	660	2.7	335	2.6	280	.....	.....
31	3.1	660	2.7	335	.....	.....	.....	.....

NOTE.—Conditions at the gauging station changed during the flood in the early part of June, and the rating table does not apply until after the flood.

DAILY Gauge Height and Discharge of Waterton River, at Waterton Mills, Alta., for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.6	280	4.9	4,365	4.3	2,800
2			2.7	335	5.3	5,490	4.2	2,560
3			2.7	335	5.6	6,414	4.3	2,800
4			3.1	660	5.5	6,100	4.4	3,040
5			3.1	660	5.4	5,790	4.5	3,295
6			3.1	660	5.2	5,200	4.6	3,555
7			3.2	780	5.0	4,640	4.4	3,040
8			3.2	780	5.0	4,640	4.3	2,800
9	2.4	200	3.2	780	4.9	4,365	4.2	2,560
10	2.4	200	3.3	905	4.9	4,365	4.1	2,325
11	2.4	200	3.3	905	4.8	4,090	4.0	2,105
12	2.5	235	3.4	1,040	4.9	4,365	3.9	1,900
13	2.5	235	3.4	1,040	5.0	4,640	3.9	1,900
14	2.6	280	3.4	1,040	5.0	4,640	3.8	1,700
15	2.6	280	3.4	1,040	5.1	4,917	3.8	1,700
16	2.5	235	3.3	905	5.1	4,917	3.8	1,700
17	2.5	235	3.3	905	5.2	5,200	3.7	1,520
18	2.5	235	3.4	1,040	5.2	5,200	3.7	1,520
19	2.6	280	3.4	1,040	5.3	5,490	3.7	1,520
20	2.6	280	3.5	1,190	5.5	6,100	3.7	1,520
21	2.5	235	3.5	1,190	5.6	6,414	3.5	1,190
22	2.5	235	3.6	1,345	5.4	5,790	3.4	1,040
23	2.5	235	3.6	1,345	5.1	4,917	3.4	1,040
24	2.5	235	3.9	1,900	4.9	4,365	3.3	905
25	2.5	235	4.2	2,560	4.7	3,822	3.3	905
26	2.5	235	4.4	3,040	4.6	3,555	3.3	905
27	2.5	235	4.7	3,822	4.4	3,040	4.2	2,560
28	2.5	235	4.7	3,822	4.3	2,800	4.4	3,040
29	2.6	280	4.7	3,822	4.3	2,800	4.6	3,555
30	2.6	280	4.8	4,090	4.3	2,800	4.4	3,040
31			4.8	4,090			4.1	2,325

DAILY Gauge Height and Discharge of Waterton River, at Waterton Mills, Alta., for 1909—*Concluded.*

Day.	August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	4.0	2,105	2.8	395	2.5	235	2.4	200
2	3.9	1,900	2.8	395	2.5	235	2.4	200
3	3.8	1,700	2.8	395	2.5	235	2.5	235
4	3.7	1,520	2.8	395	2.5	235	2.6	280
5	3.6	1,345	2.8	395	2.5	235	2.7	335
6	3.5	1,190	2.8	395	2.5	235	2.8	395
7	3.4	1,040	2.8	395	2.5	235	2.9	465
8	3.4	1,040	2.7	335	2.5	235	3.0	555
9	3.3	905	2.7	335	2.5	235	2.9	465
10	3.3	905	2.7	335	2.5	235	2.9	465
11	3.2	780	2.7	335	2.5	235	2.9	465
12	3.2	780	2.7	335	2.5	235	2.9	465
13	3.1	660	2.7	335	2.5	235	2.9	465
14	3.1	660	2.7	335	2.5	235	2.9	465
15	3.1	660	2.7	335	2.5	235	2.9	465
16	3.0	555	2.7	335	2.5	235	2.9	465
17	3.0	555	2.7	335	2.5	235	2.9	465
18	3.0	555	2.6	280	2.5	235	2.8	395
19	2.9	465	2.6	280	2.5	235	2.8	395
20	2.9	465	2.6	280	2.4	200	2.8	395
21	2.9	465	2.6	280	2.4	200	2.8	395
22	2.9	465	2.6	280	2.4	200	2.8	395
23	2.8	395	2.6	280	2.4	200	2.9	465
24	2.8	395	2.5	235	2.4	200	3.0	555
25	2.8	395	2.5	235	2.4	200	3.2	780
26	2.8	395	2.5	235	2.4	200	.....	.....
27	2.8	395	2.5	235	2.4	200	.....	.....
28	2.8	395	2.5	235	2.4	200	.....	.....
29	2.8	395	2.5	235	2.4	200	.....	.....
30	2.8	395	2.5	235	2.4	200	.....	.....
31	2.8	395	.....	.....	2.4	200	.....	.....

MONTHLY Discharge of Waterton River, at Waterton Mills, Alta., for 1908–9.

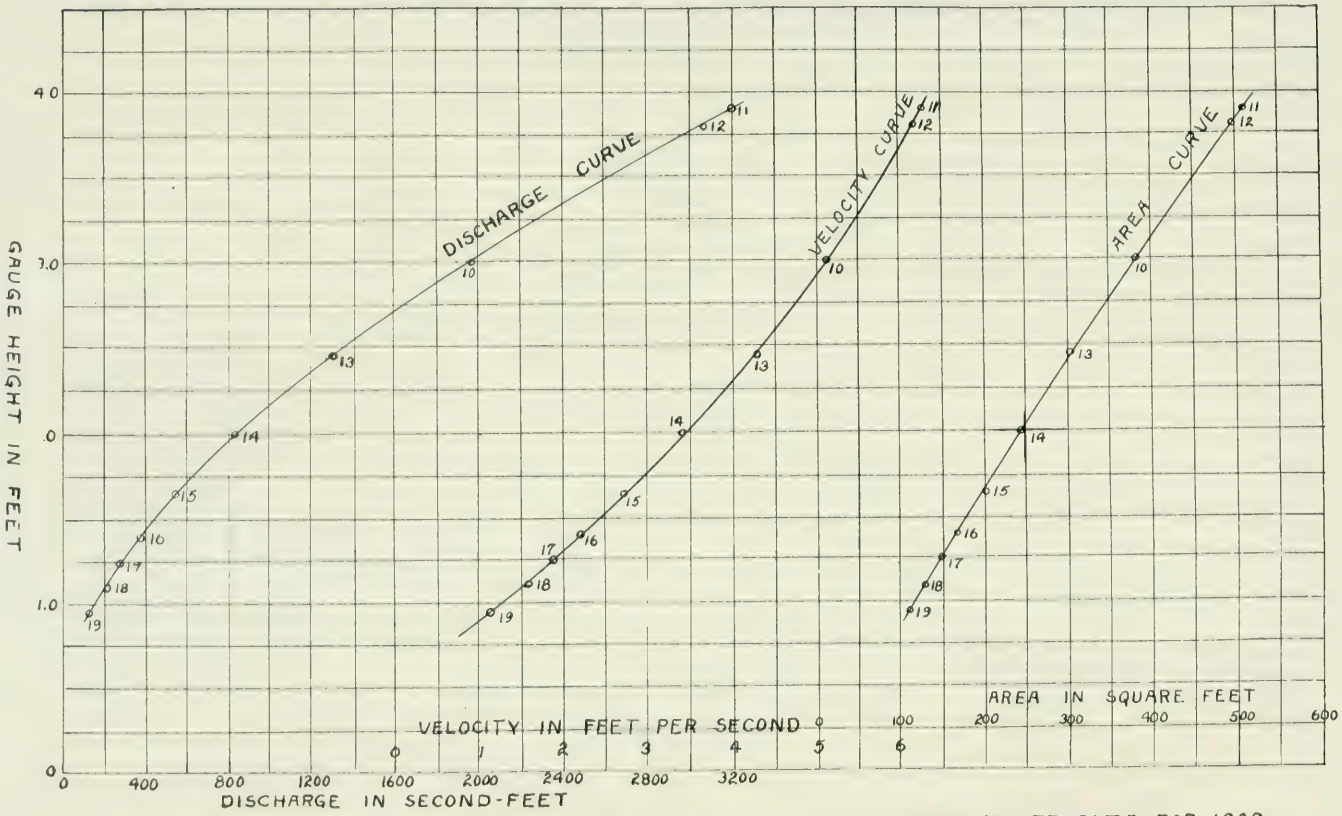
[Drainage area, 238 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
1908.						
June (10-30)	7,750	2,325	3,811.4	16.014	12.507	158,755
July	3,040	660	1,852.6	7.784	8.974	113,910
August	780	335	485.3	2.039	2.351	29,841
September	335	200	234.8	0.986	1.100	13,973
October (1-17)	660	280	426.8	1.793	1.133	14,390
The period						330,869
1909.						
April (9-30)	280	200	242.5	1.019	0.834	10,582
May	4,090	280	1,527.3	6.417	7.398	93.912
June	6,414	2,800	4,707.7	19.780	22.060	280,124
July	3,555	905	2.140.8	8.995	10.370	131,630
August	2,105	395	782.9	3.289	3.792	48,139
September	395	235	314.7	1.322	1.475	18,724
October	235	200	221.5	0.930	1.072	13,616
November (1-25)	555	200	425.0	1.785	1.659	21,074
The period						617,801

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements in Waterton River drainage basin, in 1908–9.

Date.	Stream.	Locality.	Hydrographer.	Discharge.
1908.				*Sec.-ft.*
September 4	Oil Creek	Near mouth	H. C. Ritchie	14.4
1909.				
July 24	Oil Creek	Near mouth	H. C. Ritchie	85
August 16	....do	....do	....do	49.8
August 30	....do	....do	....do	30.1
September 16	....do	....do	....do	28.4
October 1	....do	....do	A. W. Pae	21.3
November 4	....do	....do	....do	25.6
July 24	Blakiston Brook	Sec. 30–1–29–4	H. C. Ritchie	120.0
August 16	....do	....do	....do	92.5
August 30	....do	....do	....do	48.2
September 16	....do	....do	....do	40.2
October 1	....do	....do	A. W. Pae	34.5
November 4	....do	....do	....do	35.4
July 24	Lost Creek	Sec. 5–2–29–4	H. C. Ritchie	23.2
November 5	Cottonwood Creek	Sec. 20–2–29–4	A. W. Pae	8.1
November 5	Pine Creek	Sec. 21–3–29–4	....do	7.8
August 31	Yarrow Creek	S. E 8–4–29–4	H. C. Ritchie	29.3
November 5	....do	....do	A. W. Pae	21.4
August 31	Drywood River	Sec. 17–4–29–4	H. C. Ritchie	28.4
November 5	....do	....do	A. W. Pae	14.5
August 16	Crooked Creek	Sec. 22–2–29–4	H. C. Ritchie	8.4
August 30	....do	....do	....do	6.6
September 15	....do	....do	....do	5.5
October 2	....do	....do	A. W. Pae	4.6
November 4	....do	....do	....do	6.7



DISCHARGE, AREA, AND MEAN-VELOCITY CURVES OF BELLY RIVER AT STAND OFF, ALTA., FOR 1909.

Belly River, at Stand Off, Alta.

A gauging station was established on the Belly River as early as 1906. Mr. J. F. Hamilton placed a gauge on the left bank of the river, within 200 yards of the police detachment at Big Bend, Alta., on the 18th of September, 1906. Measurements were taken in the vicinity of this station up to September 14th, 1908, when owing to the changeable conditions at the station it was abandoned.

On May 27th, 1909, Mr. H. C. Ritchie established a new station at Stand Off, Alta.

A gauge, consisting of a plain staff graduated to tenths and hundredths of a foot was securely fastened to a post on the left bank of the river, near George Pearson's out-buildings. The gauge is referred to bench marks, placed on fence posts at distances of 25 and 37 feet; elevations 7.49 and 8.35 above the zero of the gauge.

The discharge measurements are taken from the traffic bridge, located on the N.E. $\frac{1}{4}$ of Section 20, Tp. 6, Range 25, west of the 4th Meridian. The initial point for soundings was marked on the guard rail near the end of the approach. The remaining span of the bridge was divided into sections of five feet.

For a distance of 75 feet above and 60 feet below, the river is straight, running smoothly with an average velocity over a bed of clean gravel Both banks are low, free from brush and liable to overflow during high stages of the river.

Since the establishment of this station, the cross-section has changed very little, if any, but owing to the sharp turns in the channel the river is liable to take a new course altogether in times of extreme flood.

The daily gauge heights were read by Mr. George Pearson, during the season of 1909.

Discharge Measurements of Belly River at Stand-Off, Alta., in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 3	H. R. Carscallen	101.5	281	3.27	.....	918
September 14	....do	85.5	138	1.50	.....	207
1909.						
May 27	H. C. Ritchie	104.5	384	5.14	3.005	1,971
June 3	....do	111.5	508	6.29	3.90	3,195
June 22	....do	111.5	496	6.20	3.80	3,072
June 30	....do	100.5	303	4.32	2.45	1,308
July 19	....do	94.7	246	3.37	2.00	830
August 10	....do	93.0	201	2.73	1.66	551
August 24	....do	91.5	169	2.19	1.40	371
September 10	....do	84.5	147	1.89	1.24	278
September 27	A. W. Pae	84.0	131	1.62	1.10	213
October 29	....do	83.0	109	1.14	0.94	125

DAILY Gauge Height and Discharge of Belly River, at Stand-Off, Alta., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			3.2	2,245	2.4	1,235	2.5	1,350	1.3	310	1.2	255
2			3.3	2,380	2.3	1,130	2.5	1,350	1.3	310	1.2	255
3			3.5	2,650	2.6	1,465	2.4	1,235	1.3	310	1.2	255
4			4.0	3,330	2.7	1,585	2.3	1,130	1.3	310	1.15	230
5			3.8	3,055	2.6	1,465	2.3	1,130	1.3	310	1.15	230
6			3.8	3,055	2.6	1,465	2.2	1,025	1.3	310	1.1	205
7			4.0	3,330	2.5	1,350	2.1	925	1.3	310	1.1	205
8			3.9	3,190	2.4	1,235	2.0	830	1.3	310	1.1	205
9			3.8	3,055	2.5	1,350	1.7	580	1.3	310	1.15	230
10			3.4	2,515	2.4	1,235	1.7	580	1.25	282	1.2	255
11			3.1	2,105	2.3	1,130	1.6	505	1.25	283	1.15	230
12			3.0	1,975	2.2	1,025	1.6	505	1.25	282	1.1	205
13			3.1	2,105	2.2	1,025	1.6	505	1.25	283	1.1	205
14			3.2	2,245	2.1	925	1.6	505	1.25	282	1.1	205
15			3.2	2,245	2.1	925	1.6	505	1.25	283	1.1	205
16			3.3	2,380	2.1	925	1.5	435	1.2	255	1.1	205
17			3.4	2,515	2.0	830	1.5	435	1.2	255	1.05	180
18			3.4	2,515	2.0	830	1.5	435	1.2	255	1.05	180
19			3.5	2,650	2.0	830	1.5	435	1.2	255	1.05	180
20			3.9	3,190	2.0	830	1.5	435	1.2	255	1.0	155
21			4.2	3,610	2.0	830	1.5	435	1.2	255	1.0	155
22			3.9	3,190	2.0	830	1.45	402	1.2	255	1.0	155
23			3.7	2,920	1.9	740	1.45	403	1.15	230	1.0	155
24			3.4	2,515	1.9	740	1.4	370	1.15	230	1.0	155
25			3.2	2,245	1.9	740	1.4	370	1.15	230	1.0	155
26	3.0	1,975	3.2	2,245	1.8	655	1.4	370	1.1	205	1.0	155
27	3.0	1,975	2.8	1,710	2.0	830	1.4	370	1.1	205	0.95	132
28	3.2	2,245	2.7	1,585	3.0	1,975	1.35	340	1.1	205	0.95	133
29	3.2	2,245	2.6	1,465	3.0	1,975	1.35	340	1.15	230	0.95	132
30	3.1	2,105	2.5	1,350	2.7	1,585	1.3	310	1.15	230	0.95	133
31	3.0	1,975			2.6	1,465	1.3	310			0.95	132

MONTHLY Discharge of Belly River at Stand-Off, Alta., for 1909.

[Drainage area, 423 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
May (26–31)	2,245	1,975	2,086.7	4.933	1.101	24.833
June	3,330	1,350	2,518.8	5.954	6.643	149,881
July	1,975	655	1,134.0	2.680	3.090	69.730
August	1,350	310	608.2	1.438	1.658	37,398
September	310	205	267.8	0.633	0.706	15,937
October	255	132	189.3	0.447	0.515	11,637
The period						309,416

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Belly River, at the traffic bridge on Sec. 1, Tp. 3, Range 28 west of the 4th Meridian, in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Sec.-ft.*
June 19	H. R. Carscallen	95	395	1617
July 1	do	92	290	940
1909.				
May 29	H. C. Ritchie	100	398	2031

Mami Creek, at Mountain View, Alta.

The gauging station on Mami Creek was established by H. C. Ritchie, on August 13th, 1909.

The gauge which consists of a plain staff, graduated to feet and hundredths, is securely fastened to a pile of the traffic bridge on road allowance, north of Section 18, Tp. 2, Range 27, west of the 4th Meridian. The gauge is referred to a bench mark on the right bank; elevation 9.30 above zero of the gauge.

The channel curves for about 100 feet above the rod but below it is straight for about 200 feet. The bed is rocky, with clean sand and gravel. Both banks are clean, high and rocky but liable to overflow in heavy flood.

During high water the discharge measurements are taken from the traffic bridge, which is situated just below the junction of the east and west branches of the stream. All the water passes through the bridge in one channel. In low stages the east branch dries up and a wading section on the west branch, just above the junction, is used.

The gauge was read daily by Mr. James Cowcill, during 1909.

Discharge Measurements of Mami Creek, at Mountain View, Alta., in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1909.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 24	H. C. Ritchie	10	23	2.15	.....	49.3
July 22	do	9.4	15	3.89	.....	5.77
August 13	do	9.0	14.6	0.41	1.94	6.03
August 27	do	9.0	14.3	0.23	1.86	3.30
September 14	do	7.0	2.3	0.83	1.84	1.92
September 30	A. W. Pae	7.0	1.9	0.87	1.85	1.65
November 2	do	5.8	1.9	0.85	1.85	1.61

Note.—The flow of the East Branch of Mami Creek, at Mountain View was estimated to be 4.2 sec.-ft. on June 24th. On July 22nd it was almost dry and remained so until the close of the season's field work in that vicinity.

Daily Gauge Height, in feet, of Mami Creek, at Mountain View, Alta., for 1909.

Day.	Aug.	Sept.	Oct.	Day.	Aug.	Sept.	Oct.
1		1.8	1.8	16	1.9	1.8	1.8
2		1.8	1.8	17	1.9	1.8	1.8
3		1.8	1.8	18	1.9	1.8	1.8
4		1.8	1.8	19	1.9	1.8	1.8
5		1.8	1.8	20	1.8	1.8	1.8
6		1.8	1.8	21	1.8	1.8	1.8
7		1.8	1.8	22	1.8	1.8	1.8
8		1.8	1.8	23	1.8	1.8	1.8
9		1.8	1.8	24	1.8	1.8	1.8
10		1.8	1.8	25	1.8	1.8	1.8
11		1.8	1.8	26	1.8	1.8	1.8
12		1.9	1.8	27	1.8	1.8	1.8
13	1.9	1.9	1.8	28	1.8	1.8	1.8
14	2.0	1.8	1.8	29	1.8	1.8	1.8
15	1.9	1.8	1.8	30	1.8	1.8	1.8
				31	1.8		1.8

Lee Creek, at Cardston, Alta.

A regular gauging station was established on Lee Creek by H. C. Ritchie, on June 28th, 1909. It is situated in the eastern portion of the town of Cardston, on the N.W. $\frac{1}{4}$ of Section 10, Tp. 3, Range 25, west of the 4th Meridian.

The gauge which consisted of a plain staff, graduated to tenths and hundredths of a foot, was securely fastened to the foot bridge, crossing the creek at this point. It was referred to a bench mark nearby; elevation 8.45. On the 28th of July, the foot bridge was washed out by the flood, taking the gauge with it. On August 11th, Mr. Ritchie put in a new gauge which he securely fastened to a post, placed in the right bank of the stream. This new location of the gauge is about 50 feet upstream from the old and is referred to a bench mark of elevation 8.40.

Before the flood, the discharge measurements were taken at a wading section near the foot bridge. Since establishing the new gauge, measurements have been taken at a wading station about 40 feet above the present location of the gauge; a permanent initial point for soundings being established by driving a stake into the right bank.

The channel is straight for about 100 feet above and 300 feet below the section. The bed is composed of a shallow layer of soft sand over a gravel foundation. The current which has a medium velocity is quite uniform. The right bank is a high clay cut while the left is low and stony and liable to overflow during high water.

The discharge measurements taken during the season were quite satisfactory, but owing to the change in gauges and cross-section, there is a break in the records from July 27th to August 11th. The gauge was read daily by Mr. Sterling Williams.

Discharge Measurements of Lee Creek, at Cardston, Alta.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 24	H. C. Ritchie					216
July 1	H. R. Carscallen					149
September 2	H. C. Ritchie	13.2	7.6	1.76		13.5
September 15	H. R. Carscallen	21.5	14.4	0.79		11.4
1909.						
June 2	H. C. Ritchie	93.0	130.7	3.97		518.5
June 28	do	63.9	78.8	2.72	2.35	213.3
July 20	do	60.0	46.0	1.36	1.85	62.6
August 11	do	62.2	41.9	1.54	1.75	64.7
August 25	do	59.5	27.2	1.13	1.55	30.8
August 25	do	59.5	27.2	1.05	1.55	28.7
September 11	do	34.7	30.0	1.15	1.56	34.4
September 28	A. W. Pae	33.6	23.3	0.79	1.46	18.4
October 29	do	33.1	22.2	0.71	1.45	15.9

Daily Gauge Height and Discharge of Lee Creek, at Cardston, Alta., for 1909.

Day.	June.		July.		August.		September.		October.		November.	
	Gauge Height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.30	198.0			1.50	23.0	1.40	10.0	1.38	7.0
2			2.30	198.0			1.50	23.0	1.40	10.0	1.38	7.0
3			2.20	166.0			1.52	26.0	1.40	10.0	1.40	10.0
4			2.20	166.0			1.54	29.0	1.40	10.0	1.42	12.0
5			2.20	166.0			1.52	26.0	1.40	10.0	1.45	16.5
6			2.40	230.0			1.50	23.0	1.38	7.0	1.44	15.0
7			2.20	166.0			1.48	20.0	1.39	8.5	1.43	13.5
8			2.20	166.0			1.46	18.0	1.40	10.0	1.42	12.0
9			2.20	166.0			1.44	15.0	1.40	10.0	1.40	10.0
10			2.10	136.0			1.40	10.0	1.40	10.0	1.40	10.0
11			2.10	136.0	1.70	55.0	1.50	23.0	1.42	12.0		
12			2.10	136.0	1.70	55.0	1.60	39.0	1.42	12.0		
13			2.10	136.0	1.70	55.0	1.54	29.0	1.40	10.0		
14			2.10	136.0	1.70	55.0	1.52	26.0	1.40	10.0		
15			2.00	106.0	1.70	55.0	1.50	23.0	1.40	10.0		
16			2.00	106.0	1.60	39.0	1.48	20.0	1.40	10.0		
17			2.00	106.0	1.60	39.0	1.44	15.0	1.41	11.0		
18			1.90	77.0	1.60	39.0	1.50	23.0	1.42	12.0		
19			1.90	77.0	1.60	39.0	1.50	23.0	1.41	11.0		
20			1.90	77.0	1.60	39.0	1.48	20.0	1.40	10.0		
21			1.80	48.0	1.60	39.0	1.48	20.0	1.40	10.0		
22			1.80	48.0	1.60	39.0	1.46	18.0	1.40	10.0		
23			1.80	48.0	1.50	23.0	1.45	16.5	1.41	11.0		
24			1.80	48.0	1.50	23.0	1.44	15.0	1.43	13.5		
25			1.80	48.0	1.50	23.0	1.43	13.5	1.42	12.0		
26			1.80	48.0	1.50	23.0	1.42	12.0	1.41	11.0		
27					1.50	23.0	1.41	11.0	1.40	10.0		
28	2.30	198.0			1.50	23.0	1.40	10.0	1.40	10.0		
29	2.30	198.0			1.50	23.0	1.40	10.0	1.38	7.0		
30	2.30	198.0			1.50	23.0	1.40	10.0	1.38	7.0		
31					1.50	23.0			1.38	7.0		

Note.—Gauge was established June 28th, carried out by flood on July 27th, and re-established August 11th.

Monthly Discharge of Lee Creek at Cardston, Alta., for 1909.

[Drainage area, 103 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
June (28–30)	198.0	198.0	198.0	1.922	0.214	1,178
July (1–26)	230.0	48.0	120.7	1.172	1.133	6,226
August (11–31)	55.0	23.0	35.9	0.349	0.272	1,497
September	39.0	10.0	19.7	0.191	0.213	1,170
October	13.5	7.0	10.1	0.098	0.113	619
November (1–10)	16.5	7.0	11.3	0.109	0.040	224
The period						10,914

St. Mary River, at Kimball, Alta.

This station was estabilshed by the Alberta Railway and Irrigation Company, in 1905. It is located on Section 25, Tp. 1, Range 25, west of the 4th Meridian, about one half mile above the company's dam and headgate.

The channel is straight for 450 feet above and 400 feet below the station. Both banks are high and not liable to overflow. The right bank is partly covered with scrub above the station, but at and below the station it is clear. The bed of the stream is of gravel and is liable to slight changes. Since the flood of 1908, the cross-section and current are quite uniform.

Discharge measurements are made by means of a cable, car and tagged wire. The initial point for soundings is the zero of the tagged wire, which is 44.8 feet from the inside edge of the cable support on the right bank.

The gauge, which is a plain staff, graduated to feet and tenths, is set in the right bank, a few feet above the cable. A trench lined with plank, connects a stilling box about the gauge with the channel in low water. The zero of the gauge is 14.12 feet below the top of the east end of the lower sill of the cable support, on the right bank.

In 1908, the gauge was read by E. D. Mallery, and in 1909, by J. M. Dunn.

Discharge Measurements of St. Mary River, at Kimball, Alta., in 1906–7–8–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
1906.						
September 22....	J. F. Hamilton.....	224	264	1.92	.....	508
1907.						
August 3.....	I. J. Walmsley.....	230	503	4.03	4.20	2,026
1908.						
June 29.....	H. R. Carscallen.....	224	730	3.82	4.13	2,788
September 1.....	P. M. Sauder.....	219	323	1.60	2.45	519
September 16....	H. R. Carscallen.....	219	339	1.71	2.50	579
1909.						
May 20.....	H. C. Ritchie.....	221	526	2.91	3.30	1,532
June 1.....	....do.....	227.5	930	5.11	5.005	4,752
June 26.....	....do.....	229	933	4.81	5.075	4,490
June 29.....	....do.....	227	841	4.19	4.71	3,525
July 21.....	....do.....	224.5	635	3.10	3.80	1,969
August 12.....	....do.....	222	542	2.56	3.40	1,389
August 26.....	....do.....	222	437	1.96	3.00	858
September 13....	....do.....	221	396	1.76	2.85	698
September 29....	A. W. Pae.....	218.5	359	1.40	2.65	505
November 1.....	....do.....	218	308	0.98	2.35	305

Daily Gauge Height and Discharge of St. Mary River, at Kimball, Alta., for 1908.

Day.	April.		May.		June.		July.		August.		September.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1.....	.....	.....	3.72	.....	5.57	.....	4.00	2,565	3.20	1,390	2.50	575
2.....	.....	.....	3.7	.....	5.62	.....	4.02	2,598	3.17	1,351	2.46	535
3.....	.....	.....	3.7	.....	5.45	.....	4.20	2,900	3.10	1,260	2.47	545
4.....	.....	.....	3.76	.....	7.77	.....	4.20	2.900	3.10	1,260	2.43	505
5.....	.....	.....	3.8	.....	10.25	.....	4.25	2,987	3.02	1.160	2.37	446
6.....	.....	.....	3.9	.....	9.70	.....	4.27	3,022	3.00	1,135	2.31	389
7.....	.....	.....	4.05	.....	8.55	.....	4.05	2,647	3.00	1,135	2.37	446
8.....	.....	.....	4.27	.....	7.7	.....	4.05	2,647	3.00	1,135	2.42	495
9.....	.....	.....	4.42	.....	7.0	.....	4.12	2,764	2.97	1,099	2.43	505
10.....	.....	.....	4.45	.....	6.6	.....	4.10	2,730	2.90	1,015	2.50	575
11.....	.....	.....	4.45	.....	6.37	.....	4.12	2,764	2.90	1,015	2.45	525
12.....	.....	.....	4.6	.....	6.25	.....	4.10	2,730	2.87	980	2.45	525
13.....	2.85	.....	4.65	.....	5.9	.....	4.02	2,598	2.85	957	2.45	525
14.....	2.9	.....	4.75	.....	5.65	.....	4.17	2,849	2.85	957	2.45	525
15.....	2.9	.....	4.72	.....	5.52	.....	4.10	2,730	2.82	923	2.50	575
16.....	2.9	.....	4.77	.....	5.42	.....	4.05	2,647	2.73	822	2.50	575
17.....	3.05	.....	4.57	.....	5.35	.....	4.07	2,680	2.70	788	2.50	575
18.....	3.25	.....	4.37	.....	5.25	.....	4.02	2,598	2.70	788	2.50	575
19.....	3.47	.....	4.32	.....	4.95	.....	3.85	2,326	2.70	788	2.55	627
20.....	3.62	.....	4.35	.....	4.77	.....	3.80	2,248	2.70	788	.....	.....
21.....	3.77	.....	4.25	.....	4.62	3,669	3.77	2,202	2.77	866	.....	.....
22.....	3.85	.....	4.2	.....	4.47	3,384	3.70	2,095	2.80	900		
23.....	3.92	.....	4.2	.....	4.32	3,111	3.74	2,156	2.80	900	.....	.....
24.....	4.0	.....	4.25	.....	4.20	2,900	3.71	2,110	2.77	866	.....	.....
25.....	4.05	.....	4.3	.....	4.25	2,987	3.65	2,020	2.75	844	.....	.....
26.....	4.0	.....	4.5	.....	4.37	3,201	3.57	1,901	2.72	810	.....	.....
27.....	4.0	.....	4.87	.....	4.42	3,292	3.48	1,772	2.67	756	.....	.....
28.....	3.87	.....	4.62	.....	4.30	3,075	3.42	1,688	2.65	734	.....	.....
29.....	3.52	.....	4.47	.....	4.15	2,815	3.33	1,564	2.62	702	.....	.....
30.....	3.77	.....	4.52	.....	4.05	2,647	3.22	1,417	2.55	627	.....	.....
31.....	.....	.....	4.82	.....	.....	.....	3.20	1,390	2.52	596	.....	.....

Highest stage was on June 5th when the maximum gauge height was over 11 feet. On account of changing conditions during the flood the rating table could not be applied to gauge heights previous to June 21st.

DAILY Gauge Height and Discharge of St. Mary River, at Kimball, Alta., for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.2	290	5.1	4,978	4.65	3,415
2			2.6	680	5.5	5,985	4.85	3,797
3			3.1	1,260	5.8	6,780	4.8	3,700
4			3.2	1,390	5.8	6,760	4.8	3,700
5			3.0	1,135	5.8	6,720	4.85	3,797
6			2.8	900	5.75	6,560	4.95	3,992
7			2.7	788	5.55	6,010	4.85	3,797
8			2.8	900	5.6	6,120	4.75	3,605
9			2.85	957	5.65	6,240	4.55	3,227
10			3.0	1,135	5.35	5,420	4.45	3,047
11			3.0	1,135	5.25	5,170	4.4	2,960
12			2.9	1,015	5.1	4,790	4.4	2,960
13			2.95	1,075	5.15	4,870	4.35	2,875
14			3.0	1,135	5.35	5,355	4.3	2,790
15			3.15	1,325	5.5	5,730	4.25	2,705
16			3.15	1,325	5.65	6,105	4.1	2,455
17			3.05	1,197	5.7	6,210	4.05	2,372
18			3.1	1,260	5.8	6,480	4.1	2,455
19			3.3	1,525	5.85	6,600	3.95	2,207
20			3.45	1,745	6.1	7,280	3.9	2,125
21			3.5	1,820	6.1	7,260	3.8	1,970
22			3.8	2,310	5.85	6,545	3.7	1,820
23			3.95	2,575	5.65	5,990	3.7	1,820
24			4.0	2,665	5.45	5,420	3.7	1,820
25			4.25	3,125	5.25	4,910	3.7	1,820
26	2.5	575	4.45	3,522	5.05	4,490	3.85	2,047
27	2.5	575	4.55	3,729	4.85	3,965	4.6	3,320
28	2.4	475	4.7	4,045	4.75	3,700	5.95	6,167
29	2.35	427	4.85	4,380	4.7	3,510	5.5	5,140
30	2.4	475	4.85	4,380	4.65	3,415	5.1	4,290
31			4.85	4,380			4.85	3,797

DAILY Gauge Height and Discharge of St. Mary River, at Kimball, Alta., for 1909.—*Con.*

Day.	August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
Month.	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	4.7	3,510	2.9	760	2.7	565	2.4	340
2	4.45	3,047	2.9	760	2.7	565	2.4	340
3	4.35	2,875	2.9	760	2.7	565	2.4	340
4	4.15	2,537	2.9	760	2.7	565	2.7	565
5	4.0	2,290	2.9	760	2.7	565	2.95	815
6	3.85	2,047	2.9	760	2.7	565	3.0	870
7	3.8	1,970	2.9	760	2.7	565	2.95	815
8	3.7	1,820	2.8	655	2.7	565	3.0	870
9	3.6	1,675	2.8	655	2.65	522	2.95	815
10	3.5	1,530	2.8	655	2.6	480	2.95	815
11	3.5	1,530	2.95	815	2.6	480	2.9	760
12	3.4	1,385	2.9	760	2.6	480	2.8	655
13	3.4	1,385	2.9	760	2.6	480	2.8	655
14	3.35	1,315	2.8	655	2.6	480	2.8	655
15	3.3	1,245	2.8	655	2.6	480	2.8	655
16	3.3	1,245	2.8	655	2.6	480	2.8	655
17	3.25	1,180	2.8	655	2.5	405	2.85	707
18	3.2	1,115	2.8	655	2.5	405	2.85	707
19	3.2	1,115	2.8	655	2.5	405	2.9	760
20	3.1	990	2.75	610	2.5	405	3.0	870
21	3.1	990	2.7	565	2.5	405	.....	.....
22	3.1	990	2.7	565	2.5	405	.....	.....
23	3.05	930	2.7	565	2.5	405	.....	.....
24	3.0	870	2.7	565	2.5	405	.....	.....
25	3.0	870	2.6	480	2.5	405	.....	.....
26	3.0	870	2.6	480	2.4	340	.....	.....
27	3.0	870	2.6	480	2.4	340	.....	.....
28	3.0	870	2.6	480	2.4	340	.....	.....
29	3.0	870	2.6	480	2.4	340	.....	.....
30	2.9	760	2.65	522	2.4	340	.....	.....
31	2.9	760	.....	.....	2.35	307	.....	.....

Monthly Discharge of St. Mary River at Kimball, Alta., for 1908.

[Drainage area, 472 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
1908.						
June (21-30)	3,669	2,647	3,108.1	6.585	2.449	61,648
July	3,022	1,390	2,395.0	5.074	5.850	147,265
August	1,390	596	946.7	2,006	2.313	58,210
September (1-19)	627	389	528.6	1.120	0.791	19,921
The period						287,044
1909.						
April (26-30)	575	427	505.4	1.078	0.200	5,012
May	4,380	290	1,906.5	4.039	4.657	117,225
June	7,280	3,415	5,645.6	11.961	13.335	335,936
July	6,167	1,820	3,096.5	6.560	7.563	190,397
August	3,510	760	1,466.3	3.107	3.582	90,160
September	815	480	644.7	1.366	1.524	38,362
October	565	307	453.3	0.960	1.107	27,872
November (1-20)	870	340	683.2	1.447	1.076	27,102
The period						832,066

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Alberta Railway and Irrigation Company's Canal, near Kimball, Alta., in 1908–9.

Date.	Hydrographer.	Measurement at	Discharge.
1908.			*Sec.-ft.*
September 1	P. M. Sauder	Flume over Rolph Creek.	189
September 16	H. R. Carscallen	....do	411
1909.			
June 1	H. C. Ritchie	Flume over Rolph Creek.	138
June 26	....do	Bridge No. 1	611
November 1	A. W. Pae	....do	228

15″ Weir used in Maple Creek District.

REPORT

ON

STREAM MEASUREMENTS IN MAPLE CREEK DISTRICT

SUBMITTED TO

THE CHIEF HYDROGRAPHER, DEPARTMENT OF INTERIOR

BY

H. R. CARSCALLEN, B. A. Sc., District Hydrographer

FEBRUARY 10TH, 1910.

Department of the Interior,
Hydrographic Surveys,
Calgary, Alta., February 10, 1910.

P. M. Sauder, Esq.,
Chief Hydrographer.

Sir,—I beg to submit herewith my report of hydrographic work accomplished in the Maple Creek district during the season of 1909.

In accordance with your instructions, dated May 8, I proceeded to Maple Creek and took over the outfit stored there by Mr. F. T. Fletcher.

On May 11, work was begun and carried on to November 25, when the party was recalled.

General Features of District.

The Maple Creek district, from a hydrographic standpoint, is comprised of a number of streams all of which have their source in the Cypress hills, This comparatively high range of hills lies south of the main line of the Canadian Pacific Railway in the south western part of Saskatchewan and extends for some distance into Alberta. These hills have a drainage in three general directions, viz.—north into a series of lakes lying between the Canadian Pacific Railway and the Sand Hills; east into the South Saskatchewan river by way of Swiftcurrent creek; south into Milk river. A continuation of the Cypress Hills proper has, in addition, a drainage west and north into the South Saskatchewan by way of the Sevenpersons River.

The greater part of the drainage area of the Cypress Hills is devoid of tree growth, although most of the streams themselves and the coulees draining into them are densely covered with brush and in some localities with fair-sized timber. As an outcome of this scarcity of tree growth the streams are subject to violent floods of short duration and reach a low stage, some of them becoming perfectly dry in midsummer. The fall or slope of the beds of most of the streams is very considerable and this explains, in part, the fast run-off of flood water. It is very evident that there is great necessity for reservoirs along the streams in order that the flood water may be stored up and the flow equalized during the summer months, when it is most needed. The hills are entirely of earth and gravel formation and for this reason the streams are constantly changing their course, or shifting their beds. This fact, together with the extreme floods to which they are subject, makes the selection of a permanent cross-section for gauging purposes a very difficult one. Many of the streams have a sub-surface flow which materially affects the accuracy of discharge measurements made at low-water stages. In many cases the stream will disappear altogether and leave the bed perfectly dry, the flow reappearing again perhaps miles below. This is particularly the case with Fairwell and Middle Creeks and the fact points out the necessity for a thorough investigation and study of such streams and the causes of these peculiarities of flow, especially as there are so many small irrigation rights registered against them which require a thorough knowledge of this flow in order to administer their water supply with justice.

In the case of the streams draining into the Frenchman River much annoyance was caused during the season of 1909 by the work of beavers. In the first place they hamper the hydrographer in his reconnaissance for gauging stations, the selection of many of the very best sites being prohibited by beaver dams constructed below the section. Then again they may construct their dams below a station already established, thus raising the water at the gauge above its normal level and possibly destroying the usefulness of previous records.

Past Work in the Maple Creek District.

As far as could be learned the first work of this kind carried on in the Maple Creek district was in 1897, when miscellaneous gaugings of Willow (Lodge) Creek, Medicine-Lodge Creek, Battle Creek and Belanger Creek were made and high-water and flood discharges computed (see General Report on Irrigation and Canadian Irrigation Surveys for 1897-8). In 1898 gauge heights were placed on Canadian Pacific Railway bridges spanning the following nine creeks:—Maple, Fish, (Gap), McKay, Boxelder, Piapot, Swiftcurrent, Sevenpersons, Bullshead and Ross. Daily gauge height observations were recorded during a short period of the summer of 1898 and, from these, curves showing the rise and fall of the streams during the period of observations were made, (see General Report for 1897–8). No discharge measurements, however, were obtained at these stations during the season and hence no rating curves could be constructed. For several years Mr. R. J. Burley, irrigation inspector, has made miscellaneous gaugings on a great number of the streams in conjunction with his inspections. In 1908 Mr. Burley established gauge heights on the following streams, obtaining several gaugings and daily records of gauge heights on each:—Maple Creek, Piapot Creek, Bear Creek, Skull Creek, Bone Creek, Frenchman River, North Fork of Frenchman River and Enright and Strong's Irrigation Ditch. In the spring of 1909 Mr. F. T. Fletcher established permanent gauging stations on three streams—Hay, Gap and McShane Creeks. He obtained a number of discharge measurements at these stations as well as at those established by Mr. Burley the previous season. Later in the season Mr. Fletcher under the direction of Mr. Burley established the gauging station on Battle Creek at Tenmile.

Equipment of Party.

The party consisted of the hydrographer and a helper. The district was covered by means of a team and democrat; owing to the scarcity of accommodation a small camp outfit was provided. The chief instruments used were:—an engineers level, a large Price electric meter, a small Price acoustic meter and a 15″ steel weir.

Reconnaissance.

This part of the work consists in exploring the streams with a view to obtaining locations suitable for permanent gauging stations. A special trip covering all the important streams could not be made owing to the necessity of obtaining periodical gaugings of streams on which permanent gauging stations were already established and also owing to the limited time allowed for each trip. The latter condition was due to the fact that grain for the team and other supplies for the entire trip had to be hauled from Maple Creek, it being impossible to obtain such supplies from the ranchers along the route. The method followed was to make a reconnaissance of one or more creeks each trip, carrying on the regular work of gauging at the same time. In this way this part of the work was spread over the greater part of the season. In addition to the reconnaissance of streams along the regular route, trips were made by train to Walsh, Irvine, Medicine Hat and Swiftcurrent and the following creeks were explored in the vicinity of these places with a view to obtaining locations for permanent gauging stations:—Boxelder, McKay, Stony, Ross, Bullshead, Gros Ventre, Sevenpersons and Swiftcurrent. The interval from October 1 to November 4 was spent with Mr. Burley's inspection camp with the object of becoming familiarized with the country and streams to the south and west of the regular route. In this trip Middle Creek was followed to within a short distance of its junction with Lodge Creek. Crossing Lodge Creek at the mouth of Bear Creek, the camp moved down into the Wild Horse Lake district. After completing his inspections in this district Mr. Burley moved the camp back to Middle Creek, following it up to within a short distance of the Fourth Meridian. Middle Creek was found to be perfectly dry near the Alberta boundary but started running in Sec.

30, Tp. 5, R. 29 W. of 3rd meridian and continued to have small discharge at all points below, visited during the trip. Lodge Creek was not running but had water standing in pools, while Bear and Sage Creeks were perfectly dry at this time.

On July 8 and again on September 22, a reconnaissance trip was made to the forks of the Swiftcurrent Creek on Sec. 18, Tp. 10, R. 19, w. of 3rd meridian with the object of locating a suitable gauging station on the creek below the forks. Mr. K. Sinclair's ranch is located within a mile of the forks but owing to his absence on both dates no arrangements could be made regarding gauge height observations. Should Mr. Sinclair be willing to make such observations a chain gauge could be established on the new government bridge at the forks.

Work Done During the Season.

From May 10 to October 1, in addition to the reconnaissance work mentioned under the previous heading, seven complete rounds of the district were made, gaugings being taken at all the regular stations and miscellaneous measurements on a number of less important streams. During this time permanent gauging stations were established on fourteen streams as follows:—East Branch of Bear Creek, West Branch of Bear Creek, Bridge Creek near its source, Swiftcurrent Creek near its source, Jones Coulee, Fairwell Creek, Davis Creek, Belanger Creek, Sucker Creek, Lone Pine Creek, Oxarart Creek Middle Creek, Tenmile Creek and Six Mile Coulee. After leaving Mr. Burley's camp on November 4, an additional round of the regular stations was made with the main object of preparing them, in the best manner possible, to withstand the action of frost and moving ice in the following spring.

Establishment of Stations.

With but one exception, i.e. the station on Bridge or Thirty-two Mile Creek, all gauging stations established in the district during the past season were wading stations and the method of procedure was practically the same in all cases. A hole about two feet deep was dug in the bed of the stream at one of its banks. Then a post at least six inches through and from twelve to fourteen feet in length was placed in the hole; the gauge height, a plain staff graduated to feet and hundredths, was spiked securely to the post and the hole filled in with gravel and large stones. Two large stakes, about four inches through, were driven into the ground from ten to twelve feet apart. Stout timber braces were then secured to the stakes and to the post in the form of a V. In some cases anchors were nailed to the bottom of the posts while in others two stout stakes were driven slantingly into the bank and spiked to the post near its base. Large stones, earth and gravel were packed between these stakes. Then the gauge height was referred to bench marks, a cross-section of the station was developed and the initial and final points permanently marked.

The station established on Bridge Creek was a bridge station, the gauge height in this case being attached vertically to a centre pile of the bridge.

Method of Discharge Measurements.

The large electric meter is suitable only for large streams flowing at a fairly high rate of speed, owing to the amount of water which it displaces and also to the velocity required to overcome the friction. The majority of the streams in this district have very small discharges during the greater part of the season and for this reason the large meter was of service only while the streams were in flood. At low stages it was necessary to use either the acoustic meter or a weir. The acoustic meter is suitable for shallow streams having fairly high velocities. Many of the streams when at low stages have velocities too small to be accurately recorded by the acoustic meter and results obtained in these cases were unsatisfactory. The weir used was a 15″ x 4″, capable of measuring discharges of approximately one sec.-ft. and under and was found very useful and accurate.

The method of procedure in making discharge measurements is briefly described below under two headings—current meter measurements and weir measurements.

Current meter measurements.—The cross-section is divided into a number of equal parts varying in length from one-half to five feet, depending on the size of the stream. At each point of division the depth and mean velocity of the water are recorded. In all cases of meter measurements the one-point method of obtaining mean velocity was employed. This method, which is the result of many experiments carried on by the U.S. Geological Survey, assumes that the thread of mean velocity in any vertical is at six-tenths the depth of the stream.

Weir measurements.—In making a weir measurement a suitable place for the immersion of the weir is selected. The weir is then placed in the stream at right angles to the direction of flow and as nearly level as possible. It is packed firmly with sods in order that no leakage may occur and that the full discharge of the stream flows over its crest. When the stream has adjusted itself to the change in slope due to the presence of the weir, the head of water is taken by means of an engineer's level. The rod is held on the crest of the weir and also at water level beyond the velocity of approach (approximately six feet above, for a 15″ weir), the readings being subtracted to give the head on the weir.

Computations.

Current meter measurements.—As described under the previous heading, the cross-section is divided into elementary strips. The mean velocity, area and discharge are determined separately for each strip; the total discharge and area are found by summing those for the various strips; and the mean velocity is found by dividing the total discharge by the total area.

Weir measurements.—A rectangular, sharp-crested weir, having complete end contractions, was used in all cases of weir measurement. The Francis formula, $Q = 3.33 (L - .2H) H^{\frac{3}{2}}$, was used in the computation. This formula neglects the velocity of approach the percentage of error resulting being so small that it is practically negligible.

Discussion of Data.

The office work of plotting cross-sections and discharge rating curves for the streams of the Maple Creek district shows that in the majority of cases the beds of the streams shift more or less during flood stages. Hence, whenever a change occurs a new rating curve must be plotted and sufficient measurements must be made in the field while conditions remain unchanged in order that a rating curve may be plotted which will cover the range of daily gauge heights obtained during this time. Another condition affecting the accuracy of records is that, with few exceptions, the gauge heights are read to the nearest tenth or half-tenth of a foot. This is due to the difficulty in explaining the decimal marking of the gauges. For this reason approximate results only are obtainable in the case of very small streams.

Division of District.

It has been suggested that the Maple Creek district be divided and another hydrographer placed in this country with an outfit similar to that operated during the past season. The presence of another hydrographer in the district would insure more high-water and flood measurements; also the smaller districts could be covered in a much more thorough manner and with less hardship to the horses.

During the latter part of the season when the streams are low and changes in stage take place slowly the gauging stations need not be visited at such frequent intervals. Thus the hydrographer on his trips may have time to make reconnaissances along the streams in his district with a view to establishing new permanent stations and to bettering the locations of stations already established. Investigations could be made as to the reasons for the

disappearance of water in some localities on such creeks as Middle and Fairwell, as mentioned above, and a thorough knowledge of the flow of these streams could be obtained. As to the method of dividing the district I would propose the following:—to divide the district into two sub-districts, an eastern and a western, both hydrographers to make their headquarters at Maple Creek. The eastern district would be made up of all streams east of Hay Creek, north of the hills, and east of Fairwell Creek, south of the hills; the western district would be made up of all creeks west of and including Hay Creek, north of the hills, and west of and including Fairwell Creek, south of the hills.

The division is rather hard to make at present as both hydrographers would be forced to outfit from some point or points along the main line of the Canadian Pacific Railway and the district does not divide itself naturally to conform to this condition. However, when the proposed line of the Canadian Pacific Railway from Weyburn to Lethbridge comes into operation it will in all probability skirt the southern boundary of this district and allow that portion to be worked from some point along this new line of railway.

The division suggested above would allow of a train trip for each hydrographer, one west to Medicine Hat and one east as far as Swiftcurrent, thus giving the team in charge of each hydrographer a much-needed rest.

In gathering together data for the appended report use was made of all measurements taken by Mr. Burley during the season of 1908 at or in the vicinity of permanent gauging stations.

Your obedient servant,

H. R. CARSCALLEN.

Middle Creek at Maurice Ross' Ranche.

This station was established July 20, 1908, by H. R. Carscallen. It is located on Section 30, Tp. 5, R. 29, west of the 3rd meridian, about four miles from Battle Creek post office.

The channel is straight for 50 feet above and below the station. The right bank is high but the left is low and liable to overflow in flood stages of the stream. The bed of the stream is composed of sand and coarse gravel with a little vegetation at the section, and probably shifts slightly during high water. There is only one channel at low stages but in extreme flood stages water breaks out over the left bank and forms two channels. The current is sluggish at low stages and moderate at higher stages.

Discharge measurements are made by wading at moderate stages and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked L. P. 0.0.

The gauge, which is read once each day by Mr. Ross is a 2″ x 2″ x 10′ staff nailed to a pine post sunk in the bed of the creek at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) The top of the final point stake driven close to the ground on the right bank and marked B. M. in red paint; elevation, 5.91 feet above the zero of the gauge. (2) The heads of three spikes driven into the top of the ground-log between the stable and the hen-house facing the gauge and marked B. M. in red paint; elevation, 10.63 feet above the zero of the gauge.

Gauge in Middle Creek at Ross' Ranche.

Discharge Measurements of Middle Creek at Ross' Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 16	H. R. Carscallen	5.0	1.04	0.490	.....	0.51
July 1	do	7.0	1.91	1.126	.....	2.15
July 20	do	1.25	*	0.21	0.78	0.39
August 9	do	1.25	*	0.187	0.76	0.33
September 8	do	1.25	*	0.21	0.79	0.39
September 29	do	3.0	0.99	0.576	0.825	0.57
November 4	do	1.25	*	0.10	0.75	0.13

*Weir measurements.

Daily Gauge Height and Discharge of Middle Creek at Ross' Ranche, for 1909.

Day.	July.		August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
2	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
3	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
4	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
5	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
6	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
7	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
8	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
9	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
10	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
11	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
12	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
13	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
14	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	0.8	0.36
15	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
16	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
17	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
18	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
19	.....	.....	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
20	0.8	0.46	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
21	0.8	0.46	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
22	0.8	0.46	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
23	0.7	0.15	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
24	0.7	0.15	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
25	0.8	0.46	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
26	0.9	0.90	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
27	0.9	0.90	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
28	0.9	0.90	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
29	0.8	0.46	0.8	0.36	0.6	0.36	0.8	0.36	.....	.....
30	0.8	0.46	0.8	0.36	0.8	0.36	0.8	0.36	.....	.....
31	0.8	0.46	0.8	0.36	.....	.....	0.8	0.36	.....	.....

Monthly Discharge of Middle Creek at Ross' Ranche, for 1909.

[Drainage area 168 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
July (20-31)	0.90	0.15	0.52	.003	.001	12
August	0.36	0.36	0.36	.002	.003	22
September	0.36	0.36	0.36	.002	.002	21
October	0.36	0.36	0.36	.002	.003	22
November (1-14)	0.36	0.36	0.36	.002	.001	10
The period						87

Miscellaneous Measurement.

MISCELLANEOUS MEASUREMENT OF MIDDLE CREEK.

On October 30, 1909, a measurement was made on Sec. 22, Tp. 5, R. 30, west of the 3rd meridian; the estimated discharge was 0.19 sec.-ft.

Battle Creek at Stirling's Ranche.

This station was established August 12, 1909, by F. H. Peters. It is located on Sec. 22, Tp. 3, R. 27, west of the 3rd meridian. The gauge was erected for temporary use only and a cross-section of the stream at this point was developed for future use.

The channel is straight for 150 feet above and 200 feet below the station. Both banks are high and not liable to overflow. The bed of the stream is composed of sand with hard clay banks.

The gauge is a temporary rod made of 2in. x 6in. humebr, marked off into feet and tenths by scratches on the surface of the wood and driven into the bed of the stream close to the left bank.

Discharge measurements are made at or near the station by wading. High-water measurements are not attainable owing to the absence of any structure from which to obtain such measurements. However, it is proposed to erect a cable station and establish a permanent gauge at some point in this vicinity in the near future in order that measurements may be made at all stages of the stream.

Discharge measurements of Battle Creek at Stirling's Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec. ft.*
August 12	F. H. Peters	35.7	23.5	0.549	1.00	12.89
September 22	P. M. Sauder	20.0	11.6	0.695	0.77	8.05

Dam in Battle Creek constructed by Nash and Sterling.

DAILY Gauge Height and Discharge of Battle Creek at Stirling's Ranche, for 1909.

Day.	July.		August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*sec.-ft.*	*Feet.*	*Sec.-ft.*
1					0.8	8.7	0.8	8.7	0.9	10.7
2					0.8	8.7	0.8	8.7	0.7*	6.7
3					0.7	6.7	0.8	8.7	0.7	6.7
4					0.7	6.7	0.8	8.7	0.8	8.7
5					0.7	6.7	0.8	8.7	0.8	8.7
6					0.7	6.7	0.8	8.7	0.8	8.7
7					0.7	6.7	0.8	8.7	0.9	10.7
8					0.7	6.7	0.8	8.7	0.9	10.7
9					0.7	6.7	0.8	8.7	0.9	10.7
10					0.7	6.7	0.8	8.7	0.9	10.7
11					0.7	6.7	0.8	8.7	0.9	10.7
12			1.0	12.9	0.75	7.7	0.8	8.7	0.9	10.7
13			1.0	12.9	0.75	7.7	0.8	8.7	0.9	10.7
14			0.9	10.7	0.77	8.1	0.8	8.7	0.9	10.7
15			0.9	10.7	0.77	8.1	0.9	10.7	0.9	10.7
16			0.9	10.7	0.8	8.7	0.9	10.7	1.0	12.9
17			0.9	10.7	0.8	8.7	0.9	10.7	1.0	12.9
18			0.9	10.7	0.8	8.7	0.9	10.7	1.0	12.9
19			0.9	10.7	0.8	8.7	0.9	10.7	1.0	12.9
20			0.8	8.7	0.77	8.1	0.9	10.7	1.0	12.9
21			0.8	8.7	0.8	8.7	0.9	10.7		
22			0.8	8.7	0.8	8.7	0.9	10.7		
23			0.8	8.7	0.8	8.7	0.9	10.7		
24			0.8	8.7	0.8	8.7	0.9	10.7		
25			0.8	8.7	0.8	8.7	0.9	10.7		
26			0.8	8.7	0.8	8.7	0.9	10.7		
27			0.8	8.7	0.8	8.7	0.9	10.7		
28			0.8	8.7	0.8	8.7	0.9	10.7		
29			0.8	8.7	0.8	8.7	0.9	10.7		
30			0.8	8.7	0.8	8.7	0.9	10.7		
31			0.8	8.7			0.9	10.7		

*J. A. Gaff using water in his ditch.

Battle Creek at Tenmile Police Detachment.

This station was established June 3, 1909, by F. T. Fletcher. It is located below the mouth of Tenmile Creek at the highway bridge on the surveyed trail from Maple Creek to Tenmile, and about 400 yards from the Tenmile Police Detachment. It is practically in the centre of Sec. 33, Tp. 5, R. 29, west of the 3rd meridian, about two miles south of Battle Creek post office and fifty-five miles south of Maple Creek. The bridge is a steel structure of the pony truss type, consisting of one 80 foot span, supported by two timber, rock-filled piers and having a twenty foot approach at each end of the bridge. There is only one channel at all ordinary stages of the stream, but owing to the presence of the two piers supporting the pony truss there are three channels in cases of extreme floods.

The channel is straight for 500 feet above and 300 feet below the station. Both banks are high and not liable to overflow except in extreme floods, when the water breaks over the right bank some distance above the station and flows around the gauge. The right bank is free of brush for some distance above and below the station; the left bank is sparsely covered with willows near the station. The bed of the stream is sandy and may shift somewhat in high stages of the stream. The current is very sluggish, and at very low stages vegetation appears in the bed of the stream at the station.

A standard chain gauge, which is read once each day by Constable W. A. Doak, of the R. N. W. M. Police, is located about the centre of the steel truss and is securely fastened to the guard-rail on the downstream side of the bridge. The length of the chain from the bottom of the weight to the marker is 19.10 feet. The gauge is referred to bench marks as follows: (1.) A bolt-head in the top of the left pier on the downstream side of the bridge, marked B. M. in black paint; elevation 13 97 feet above the datum of the gauge. (2.) The top of the iron pin in the road mound at the corner of the police fence, about 20 feet from the bridge on the left bank: elevation, 1,351 feet above the datum of the gauge.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inner face of the right abutment and marked O in black paint. Low-water measurements are made at a wading section about 400 yards upstream from the station.

Discharge Measurements of Battle Creek at Tenmile Police Detachment in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
November 4	F. T. Fletcher	31.0	20.0	1.29	.....	25.8
1909.						
May 28	H. R. Carscallen	34.5	84.3	1.03	.....	87
June 16	do	31.5	57.4	0.58	2.725	33.6
July 1	do	34.5	79.5	1.05	3.485	83.7
July 21	do	21.0	18.2	1.20	2.69	21.9
August 9	do	20.1	15.2	0.79	2.72	12.4
September 9	do	21.5	18.0	0.28	2.35	5.1
September 29	do	21.0	15.4	0.62	2.44	9.6
November 4	do	24.0	17.7	0.77	2.54	13.6

DAILY Gauge Height and Discharge of Battle Creek, at Tenmile Police Detachment, for 1909.

Day.	June.		July.		August.		September.		Octoher.		November.	
	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.	Gauge height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	3.5	85.1	2.7	22.05	2.4	8	2.4	8	2.5	11.8
2	.....	.....	3.5	85.1	2.7	22.05	2.35	6.5	2.4	8	2.5	11.8
3	2.8	38.6	3.4	75.2	2.7	22.05	2.35	6.5	2.4	8	2.5	11.8
4	2.8	38.6	3.1	49.6	2.7	22.05	2.35	6.5	2.4	8	2.5	11.8
5	2.7	32	3.1	49.6	2.7	22.05	2.35	6.5	2.5	11.8	2.5	11.8
6	2.7	32	3.0	42.1	2.7	22.05	2.4	8	2.5	11.8	2.5	11.8
7	2.7	32	3.0	42.1	2.7	22.05	2.4	8	2.5	11.8	2.5	11.8
8	2.8	38.6	3.0	42.1	2.7	22.05	2.4	8	2.5	11.8	2.5	11.8
9	2.9	45.8	2.9	35	2.7	22.05	2.4	8	2.5	11.8	2.5	11.8
10	3.0	53.6	2.9	35	2.6	16.45	2.4	8	2.5	11.8	2.5	11.8
11	3.0	53.6	2.95	38.5	2.6	16.45	2.4	8	2.5	11.8	2.5	11.8
12	3.0	53.6	3.0	42.1	2.6	16.45	2.4	8	2.5	11.8	2.5	11.8
13	2.9	45.8	3.0	42.1	2.5	11.8	2.4	8	2.5	11.8	2.5	11.8
14	2.9	45.8	3.0	42.1	2.5	11.8	2.4	8	2.5	11.8	.....	.....
15	3.0	53.6	2.9	35	2.4	8	2.4	8	2.5	11.8	.....	.....
16	3.0	53.6	2.9	35	2.4	8	2.4	8	2.5	11.8	.....	.....
17	3.0	53.6	2.9	35	2.4	8	2.4	8	2.5	11.8	.....	.....
18	3.5	102	2.8	28.3	2.4	8	2.4	8	2.5	11.8	.....	.....
19	3.5	102	2.8	28.3	2.4	8	2.4	8	2.5	11.8	.....	.....
20	6.2	.....	2.7	22.05	2.4	8	2.4	8	2.5	11.8	.....	.....
21	10.0	.....	2.7	22.05	2.4	8	2.4	8	2.5	11.8	.....	.....
22	6.7	.....	2.6	16.45	2.4	8	2.4	8	2.5	11.8	.....	.....
23	5.3	.....	2.6	16.45	2.4	8	2.4	8	2.5	11.8	.....	.....
24	4.8	.....	2.6	16.45	2.4	8	2.4	8	2.5	11.8	.....	.....
25	4.5	.....	2.6	16.45	2.4	8	2.4	8	2.5	11.8	.....	.....
26	4.0	143	2.6	16.45	2.3	5.2	2.4	8	2.5	11.8	.....	.....
27	3.9	131	2.6	16.45	2.3	5.2	2.4	8	2.5	1118	.....	.....
28	3.9	131	2.7	22.05	2.3	5.2	2.4	8	2.5	11.8	.....	.....
29	3.9	131	2.9	35	2.3	5.2	2.4	8	2.5	11.8	.....	.....
30	3.6	96	2.9	35	2.3	5.2	2.4	8	2.5	11.8	.....	.....
31	.....	.....	2.9	35	2.3	5.2	.....	.....	2.5	11.8	.....	.....

MONTHLY Discharge of Battle Creek, at Tenmile Police Detachment, for 1909.

[Drainage area, 220 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
June * { 3–19 / 26–30 }	143	39	68.5	.311	.254	2,989
July.....	85	16	36.7	.167	.192	2,555
August.....	22	5	12.6	.057	.066	775
September.....	8	6	7.8	.035	.039	464
October.....	12	8	11.3	.051	.059	695
November.....	12	12	12.0	.054	.026	304
The period.....	.....	.....	.....	.....	.....	.7782

NOTE.—*The interval, June 20-25, inclusive, the flood period, is not included in results for June.

Tenmile Creek at Tenmile Police Detachment.

This station was established July 21, 1909, by H. R. Carscallen. It is located about 300 yards west of the Tenmile Police Detachment near the mouth of the stream. The station is very close to the south boundary of Sec. 4, Tp. 6, R. 29, west of the 3rd meridian, almost on the quartering line of the section and about two miles south of Battle Creek post office.

The channel is straight for 15 feet above and 20 feet below the station. Both banks are high, free from brush and not liable to overflow. The bed of the stream is composed of sand and coarse gravel. There is a small rapid above the station, but the current at the station is rather sluggish.

The gauge, which was read once each day during the season of 1909, by H. M. Covey, is a plain rod, graduated to feet and hundredths, nailed to an upright post sunk in the bed of the stream at the right bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) The top of the initial point stake driven close to the ground on the left bank and marked B. M. in red paint; elevation, 5.84 feet above the zero of the gauge. (2.) The head of a spike driven into the pointed top of a willow stump about 100 feet downstream from the station on the right bank, the stump blazed and marked B. M. in red paint; elevation, 6.15 feet above the zero of the gauge.

Discharge measurements are made at or near the gauge by wading, and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. o.o with red paint.

Discharge Measurements of Tenmile Creek at Tenmile Police Detachment, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
May 28	H. R. Carscallen	3.5	1.95	0.405	.....	0.79
June 16	....do	4.0	1.32	0.311	.....	0.41
July 1	....do	4.5	1.71	0.480	.....	0.82
July 21	....do	1.25	*	0.20	0.82	0.35
August 9	....do	1.25	*	0.18	0.78	0.30
September 8	....do	1.25	*	0.13	0.82	0.19
September 29	....do	3.5	0.99	0.253	0.78	0.25
November 4	....do	1.25	*	0.26	0.79	0.26

* Weir measurements.

DAILY Gauge Height and Discharge of Tenmile Creek, at Tenmile Police Detachment, for 1909.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
2	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
3	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
4	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
5	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
6	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
7	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
8	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
9	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
10	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
11	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
12	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
13	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
14	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
15	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
16	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
17	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
18	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
19	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
20	.....	.....	0.8	0.274	0.8	0.274	0.8	0.274
21	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
22	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
23	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
24	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
25	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
26	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
27	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
28	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
29	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
30	0.8	0.274	0.8	0.274	0.8	0.274	0.8	0.274
31	0.8	0.274	0.8	0.274	.....	.....	0.8	0.274

MONTHLY Discharge of Tenmile Creek, at Tenmile Police Detachment, for 1909.

[Drainage area, 26 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total. in acre-feet.
July (21–31)	0.274	0.274	0.274	.0105	.004	6
August	0.274	0.274	0.274	.0105	.012	17
September	0.274	0.274	0.274	.0105	.012	16
October	0.274	0.274	0.274	.0105	.012	17
The period	.....	.....	.....	.....	.....	56

Six Mile Coulee at Soderstrom's Ranche.

This station was established July 22, 1909, by H. R. Carscallen. It is located on Sec. 29, Tp. 7, R. 28, west of the 3rd meridian, two hundred yards west of the surveyed trail from Maple Creek to Tenmile and about thirty miles south of Maple Creek.

The channel is straight for 50 feet above and 20 feet below the station. Both banks are high and not liable to overflow. The right bank is sparsely covered with brush; the left bank is free of brush. The bed of the stream is composed of sand and very coarse gravel with clay at the banks. The current is moderate. A small amount of vegetation is present at the station.

The gauge, which is read once each day by J. M. Soderstrom, is a plain rod graduated to feet and hundredths, nailed to an upright post sunk in the bed of the creek at the right bank, and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) A nail-head driven into the top of a pointed willow stump on the right bank, about 150 feet up stream from the gauge, the stump blazed and marked B. M. in red paint; elevation, 7.77 feet above gauge zero. (2.) Nail-heads in the top of a log near the ground at the southeast corner of Mr. Soderstrom's north stable; elevation, 18.08 feet above gauge zero.

Discharge measurements are made at or near the station by wading, and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. o.o in red paint.

Discharge Measurements of Six Mile Coulee, at Soderstrom's Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 2	H. R. Carscallen	10.7	17.4	0.987	.....	17.2
July 22	do	5.0	5.1	0.754	1.47	3.8
September 9	do	1.25	*	0.18	0.87	0.32
September 30	do	4.7	1.8	0.186	0.83	0.33
November 5	do	1.25	*	0.45	1.12	1.17

* Weir measurements.

DAILY Gauge Height and Discharge of Six Mile Coulee, at Soderstrom's Ranche, for 1909.

Day.	July.		August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			1.9	10.95	1.0	0.7	0.7	0.1	1.2	1.6
2			1.8	8.65	1.0	0.7	0.6	0.05	1.2	1.6
3			1.6	5.4	1.0	0.7	0.5	0.02	1.1	1.07
4			1.7	6.90	1.0	0.7	0.5	0.02	1.1	1.07
5			1.8	8.65	1.0	0.7	0.6	0.05	1.1	1.07
6			1.8	8.65	1.0	0.7	0.6	0.05	1.1	1.07
7			1.7	6.90	1.0	0.7	0.7	0.1	1.1	1.07
8			1.8	8.65	0.9	0.4	0.9	0.4	1.1	1.07
9			1.7	6.9	0.9	0.4	1.0	0.7		
10			1.6	5.4	0.9	0.4	1.0	0.7		
11			1.6	5.4	1.0	0.7	1.0	0.7		
12			1.6	5.4	1.0	0.7	1.0	0.7		
13			1.5	4.2	1.0	0.7	1.0	0.7		
14			1.5	4.2	1.1	1.07	1.1	1.07		
15			1.4	3.1	1.1	1.07	1.1	1.07		
16			1.3	2.3	1.0	0.7	1.1	1.07		
17			1.3	2.3	1.0	0.7	1.1	1.07		
18			1.3	2.3	1.0	0.7	1.2	1.6		
19			1.2	1.6	1.0	0.7	1.2	1.6		
20			1.2	1.6	1.0	0.7	1.2	1.6		
21			1.1	1.07	1.0	0.7	1.2	1.6		
22	1.5	4.2	1.1	1.07	1.0	0.7	1.1	1.07		
23	1.4	3.1	1.1	1.07	1.0	0.7	1.1	1.07		
24	1.4	3.1	1.1	1.07	1.0	0.7	1.2	1.6		
25	1.4	3.1	1.1	1.07	1.0	0.7	1.2	1.6		
26	1.7	6.9	1.1	1.07	1.0	0.7	1.2	1.6		
27	1.9	10.95	1.0	0.7	0.9	0.4	1.2	1.6		
28	2.5	34.5	1.0	0.7	0.9	0.4	1.1	1.07		
29	2.1	16.7	1.0	0.7	0.9	0.4	1.2	1.6		
30	2.0	13.75	1.0	0.7	0.8	0.2	1.2	1.6		
31	1.9	10.95	1.0	0.7			1.3	2.30		

MONTHLY Discharge of Six Mile Coulee, at Soderstrom's Ranche, for 1909.

[Drainage area, 21 square miles.]

	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
July (22–31)	34.5	3.13	10.7	.511	.190	213
August	11.0	0.70	3.85	.183	.211	237
September	1.1	0.20	0.65	.031	.035	39
October	2.3	0.02	0.97	.046	.053	60
November (1–8)	1.6	1.07	1.20	.057	.017	19
The period						568

Frenchman River near East End, Sask.

This station was established July 31, 1908, by F. T. Fletcher. It is located at the Enright and Strong highway bridge on the northeast quarter of Sec. 31, Tp. 6, R. 21, west of the 3rd meridian. It is about eight miles south of East End post office and a mile above the East End Police Detachment. Three miles above the station are the dam and headgates of Messrs. Enright and Strong's ditch, and hence the discharge of the stream at the station does not include that of the ditch and the latter must be added in order to obtain the total flow of the Frenchman River. The bridge is a single span, wooden structure set upon timber, rock-filled abutments.

The channel is straight for 400 feet above and 600 feet below the station. Both banks are high and not liable to overflow. The bed of the stream is composed of sand and gravel. The current is sluggish.

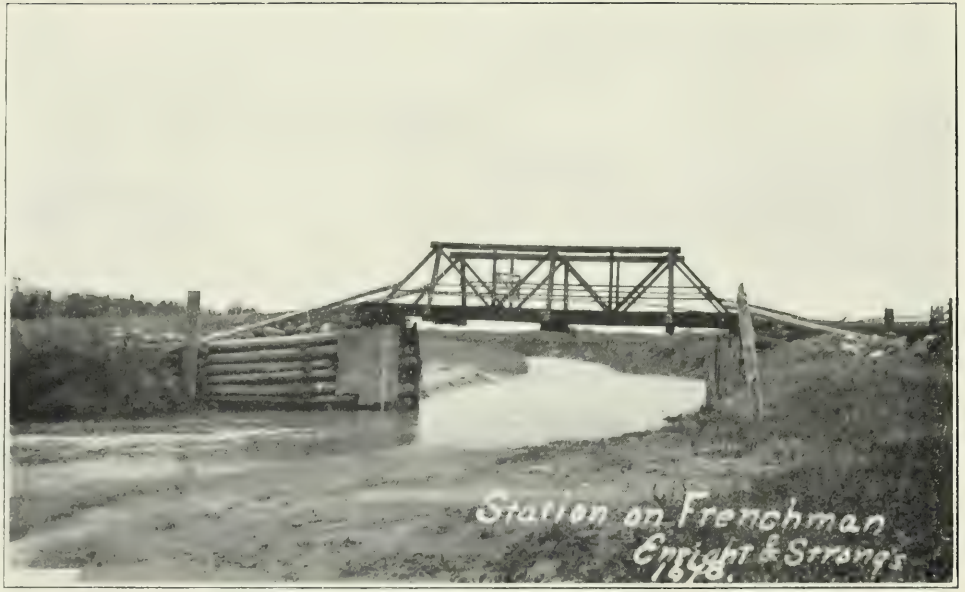
The gauge, a plain staff graduated to feet and hundredths, is attached vertically to the left abutment on its upstream side. It was read daily during the season of 1908 by J. Garrisiere, and during the season of 1909 by Charles Lock. The gauge is referred to bench marks as follows: (1.) Nail-head in the top of a long pile at the left bank and 10 feet above the bridge; elevation, 15.89 feet above the zero of the gauge. (2.) Nail-heads in the top of the stringer on the left abutment at the upstream side of the bridge, marked B. M. in red paint; elevation, 13.93 feet above the zero of the gauge.

Discharge measurements are made from the lower side of the bridge at high water stages, and at a wading section a short distance upstream at low water stages. The initial point for soundings is the inner face of the left abutment. The bridge is not quite at right angles to the direction of the current.

Discharge Measurements of Frenchman River, near East End, Sask, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 13	F. T. Fletcher	3.5	0.48	0.98	.....	0.47
July 31	....do	9.5	2.5	0.56	1.10	1.4
August 5	....do	.....	.....	.....	.....	Nil.
1909.						
April 19	F. T. Fletcher	49.5	34.8	2.67	.....	93.2*
April 30	....do	38.6	120.9	1.86	2.94	224.4
May 1	....do	38.6	104.7	1.53	2.52	159.8
May 19	H. R. Carscallen	38.0	163.8	1.92	3.465	311.2
June 8	....do	26.0	17.4	2.18	1.55	37.9
June 26	....do	38.0	115.9	2.35	3.34	266.6
July 13	....do	38.5	117.6	2.12	3.15	249.5
July 31	....do	35.0	29.4	2.50	1.93	73.5
August 23	....do	24.1	11.4	1.18	1.36	13.5
September 21	....do	20.0	10.2	1.67	1.42	17.0

* Ice conditions.



Gauging Station on Frenchman River, near East End, Sask.

DAILY Gauge Height and Discharge of Frenchman River, near East End, Sask., for 1909.

Day.	April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			2.5	158	1.7	52
2			2.3	128	1.6	41
3			3.7	350	1.3	13
4			6.8	921	1.4	22
5			6.4	841	1.5	32
6			4.5	487	1.4	22
7			3.2	265	1.5	32
8			2.7	187	1.5	32
9			2.3	128	1.6	42
10			2.6	172	1.7	53
11			2.4	143	1.7	54
12			3.1	249	1.6	42
13			2.9	217	1.6	42
14			2.7	187	1.5	32
15			2.5	157	1.4	23
16			2.2	114	1.2	8
17			2.4	142	1.3	14
18			3.7	350	1.4	22
19			3.5	316	1.6	41
20			2.3	128	2.9	211
21	6.7	904	2.8	202	8.7	1333
22	5.9	745	2.4	143	9.6	1523
23	5.1	595	2.5	158	4.7	496
24	3.7	352	3.4	300	4.1	392
25	4.3	455	3.1	250	3.5	291
26	5.4	650	2.5	158	3.3	259
27	5.9	745	2.1	102	3.0	212
28	4.6	507	2.0	88	2.6	153
29	3.8	369	1.9	76	2.9	200
30	2.9	219	1.5	30	2.9	201
31			1.8	64		

DAILY Gauge Height and Discharge of Frenchman River, near East End, Sask., for 1909.—*Concluded.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.6	157	1.8	57	1.4	16	1.4	16
2	2.5	144	1.7	45	1.4	16	1.4	16
3	2.3	116	1.6	35	1.4	16	1.4	16
4	2.2	104	1.6	35	1.4	16	1.4	16
5	2.7	177	1.6	35	1.4	16	1.4	16
6	3.2	256	1.6	35	1.4	16	1.4	16
7	3.3	273	1.6	35	1.4	16	1.4	16
8	2.8	194	1.6	35	1.4	16	1.4	16
9	2.5	150	1.6	35	1.4	16	1.4	16
10	2.2	108	1.6	35	1.4	16	1.4	16
11	4.0	393	1.6	35	1.4	16	1.4	16
12	3.3	274	1.6	35	1.4	16	1.4	16
13	3.2	258	1.6	35	1.4	16	*3.0	225
14	2.9	210	1.6	35	1.4	16	2.0	81
15	2.8	195	1.6	35	1.5	25	2.0	81
16	2.5	150	1.5	25	1.5	25	1.8	57
17	2.4	136	1.4	16	1.4	16	1.8	57
18	2.1	95	1.4	16	1.4	16	1.8	57
19	1.9	69	1.4	16	1.5	25	1.8	57
20	2.1	94	1.4	16	1.4	16	1.7	45
21	2.0	81	1.4	16	1.4	16	1.7	45
22	2.0	81	1.4	16	1.4	16	1.7	45
23	1.8	57	1.4	16	1.4	16	1.7	45
24	1.7	45	1.4	16	1.4	16	1.6	35
25	1.6	35	1.4	16	1.4	16	1.6	35
26	1.8	57	1.4	16	1.4	16	1.6	35
27	2.1	94	1.4	16	1.4	16	1.6	35
28	2.1	95	1.4	16	1.4	16	1.6	35
29	1.9	69	1.4	16	1.4	16	1.6	35
30	1.8	57	1.4	16	1.4	16	1.6	35
31	1.9	69	1.4	16	.....	.....	1.6	35

* Enright & Strong released the head on their dam.

MONTHLY Discharge of Frenchman River, near East End, Sask., for 1909.

[Drainage area, 635 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
June	1534	22.8	204.7	.322	.359	12182
July	399	37.5	143.1	.225	.259	8801
August	63	18.4	32.9	.052	.060	2021
September	27	16.6	21.1	.033	.037	1257
October	225	16.4	41.3	.065	.075	2537
The period	.....	.....	.....	.....	.....	26,798

Miscellaneous Measurement.

MISCELLANEOUS MEASUREMENTS OF FRENCHMAN RIVER.

On September 17, 1909, P. M. Sauder made a measurement of Frenchman River on Sec. 3, Tp. 1, R. 10, west of the 3rd meridian, the estimated discharge being 4.76 sec-ft.

The Enright and Strong Ditch near East End, Sask.

This station was established July 31, 1909, by F. T. Fletcher. It is located at the highway bridge on the Chinook trail, about one mile and a half west of the Enright and Strong ranche, and the same distance upstream from the bridge station on the Frenchman River. The station is about a mile and a half below the headgate of the ditch and two hundred yards above the diversion gates governing the flow of the two branches of the ditch. Hence measurements at the station are affected by changes of slope due to different positions of the headgate for the main ditch and the two diversion gates.

The ditch is straight for about 1000 feet upstream and 600 feet downstream, the south ditch continuing in the same straight course an additional distance of 600 feet before turning southward. The current is, in general, moderately fast, but is affected by the position of the governing gates as noted above.

The gauge is a plain staff, graduated to feet and hundredths, attached vertically to the downstream side of the centre bent of the bridge. Daily observations of gauge height were taken during the month of October, 1908, by J. Garrisiere, and during the season of 1909 by Charles Lock. The gauge is referred to bench marks as follows: (1.) Nail-heads on the upstream end of the first floor-plank at the right side of the bridge; elevation, 4.93 feet above the datum of the gauge. (2.) A square plug driven close to the ground 100 feet south of the bridge and in a line with the upstream hand-rail; elevation, 5.72 feet above the datum of the gauge.

Discharge measurements are made from the upper side of the bridge. The bridge divides the bridge into two channels by a central bent. The initial point for soundings is the inner face of the right abutment, marked O with white paint.

Discharge Measurements of Enright and Strong Ditch, near East End, Sask., in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 13	F. T. Fletcher	7.9	10.0	1.14	1.26	11.4
July 30	do	10.5	6.0	0.41	0.95	2.5
July 31	do	9.5	4.1	0.49	0.70	2.0
1909.						
May 19	H. R. Carscallen	15.0	15.6	0.93	1.63	14.6
June 8	do	13.5	10.7	0.76	1.34	8.2
June 26	do	13.7	5.1	0.49	1.61	2.5
July 13	do	13.9	5.6	0.58	1.77	3.2
July 31	do	17.0	21.6	0.31	2.04	6.7
August 23	do	13.5	12.2	0.46	1.43	5.6
September 21	do	8.1	2.3	0.59	0.99	1.4

DAILY Gauge Height and Discharge of Enright and Strong Ditch, near East End, Sask., for 1909.

Day.	May.		June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.4	9.35	1.4	1.75	2.0	6.1	1.6	8.25	0.8	0.6
2	.....	.....	1.5	11.5	0.9	3.1	2.1	7.7	1.6	8.25	0.8	0.6
3	.....	.....	1.4	9.35	0.7	2.0	2.1	7.7	1.5	6.6	0.8	0.6
4	.....	.....	1.4	9.35	0.9	3.1	2.0	6.1	1.5	6.6	0.8	0.6
5	.....	.....	1.4	9.35	0.8	2.5	2.1	7.7	1.6	8.25	0.8	0.6
6	.....	.....	1.4	9.35	1.1	4.8	2.0	6.1	1.6	8.25	0.7	0.4
7	.....	.....	1.4	9.35	2.1	7.7	1.9	4.65	1.5	6.6	0.8	0.6
8	.....	.....	1.4	9.35	2.1	7.7	2.0	6.1	1.6	8.25	1.0	1.4
9	1.7	16.4	1.3	7.5	2.0	6.1	2.1	7.7	1.6	8.25	1.0	1.4
10	1.3	7.5	1.4	9.35	2.0	6.1	2.2	9.45	1.5	6.6	1.0	1.4
11	1.5	11.5	1.4	9.35	2.0	6.1	2.0	6.1	1.5	6.6	1.0	1.4
12	1.1	4.8	1.3	7.5	1.8	3.55	2.0	6.1	1.5	6.6	1.0	1.4
13	1.3	7.5	1.3	7.5	1.8	3.55	2.0	6.1	1.5	6.6	0.4	0.1
14	1.5	11.5	1.3	7.5	2.0	6.1	1.9	4.65	1.5	6.6	0.4	0.1
15	1.5	11.5	1.5	11.5	1.8	3.55	1.9	4.65	1.1	2.1	0.4	0.1
16	1.5	11.5	1.7	16.4	1.6	2.45	1.8	3.55	1.1	2.1	0.4	0.1
17	1.7	16.4	1.5	11.5	1.7	2.85	1.9	4.65	1.2	3.0	0.4	0.1
18	1.6	13.85	1.4	9.35	1.7	2.85	1.9	4.65	1.2	3.0	0.0	0.0
19	1.6	13.85	1.5	11.5	1.9	4.65	1.8	3.55	1.1	2.1	0.0	0.0
20	1.4	9.35	1.5	11.5	1.6	2.45	1.7	2.85	1.1	2.1	0.0	0.0
21	1.5	11.5	2.5	15.2	1.8	3.55	1.6	2.45	1.0	1.4	0.0	0.0
22	1.3	7.5	2.3	11.3	1.6	2.45	1.6	2.45	1.0	1.4	0.0	0.0
23	1.5	11.5	2.1	7.7	1.8	3.55	1.4	5.20	1.0	1.4	0.0	0.0
24	1.6	13.85	1.9	4.65	1.9	4.65	1.6	8.25	1.0	1.4	0.0	0.0
25	1,7	16.4	1.8	3.55	1.6	2.45	1.4	5.20	1.0	1.4	0.0	0.0
26	1.5	11.5	1.6	2.45	2.1	7.7	1.5	6.6	0.8	0.6	0.0	0.0
27	1.6	13.85	1.5	2.1	2.2	9.45	1.6	8.25	0.8	0.6	0.0	0.0
28	1.6	13.85	1.6	2.45	2.0	6.1	1.6	8.25	0.8	0.6	0.0	0.0
29	1.5	11.5	1.7	2.85	2.1	7.7	1.5	6.6	0.8	0.6	0.0	0.0
30	1.7	16.4	1.5	2.1	2.1	7.7	1.9	14.9	0.8	0.6	0.0	0.0
31	1.7	16.4	.....	.....	2.0	6.1	1.8	12.4	.....	.....	0.0	0.0

MISCELLANEOUS MEASUREMENT.

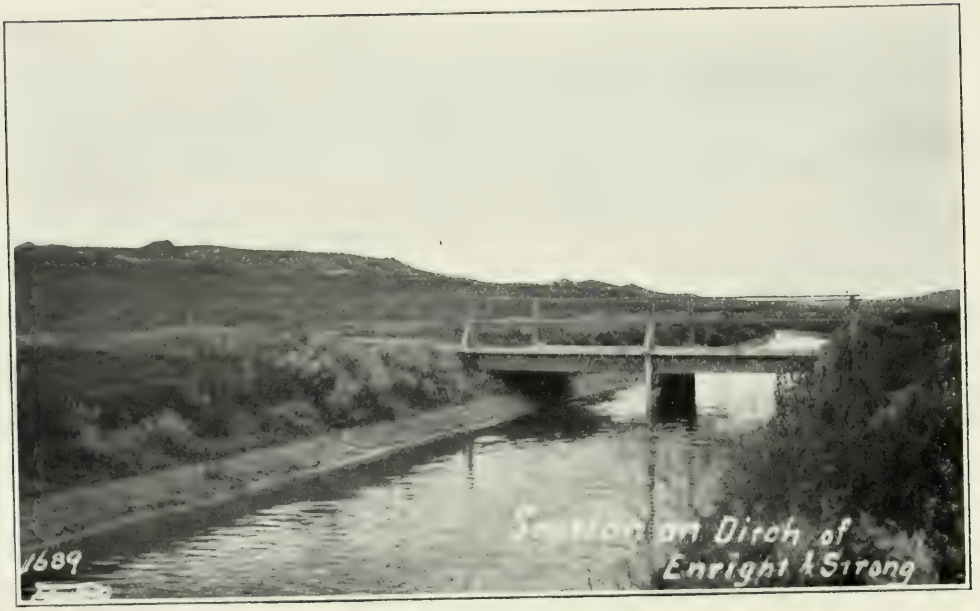
MISCELLANEOUS DISCHARGE MEASUREMENT OF WATSON'S COULEE, IN 1909.

On September 21, 1909, a weir measurement of this stream was made in Sec 7, Tp. 7, R. 21, west of the 3rd meridian, the estimated discharge being 0.08 sec.-ft.

NORTH FORK OF FRENCHMAN RIVER AT CROSS' RANCHE.

This station was established July 25, 1908, by F. T. Fletcher. It is located on Sec. 16, Tp. 7, R. 22, west of the 3rd meridian, about two and one-half miles from East End post office, and about forty-five miles southeast of Maple Creek, by trail.

The channel is straight for about 200 feet above and 600 feet below the station; the current is smooth and fairly swift. Both banks are high and not liable to overflow. The bed of the stream is sandy and may shift at high stages.



Gauging Station on Enright and Strong's Ditch, near East End, Sask.

Discharge measurements are made at or near the gauge by wading. The initial point for soundings is a square hardwood plug driven into the ground on the right bank of the stream and marked B. M. with white paint.

A plain staff, graduated to feet and hundredths, is placed vertically at the right bank about one mile downstream from the intake of Mr. Cross' irrigation ditch, and one hundred yards below his house. The gauge is read once each day by Mr. Cross. The gauge is referred to bench marks as follows: (1.) A bolt head in the ground-log at the southeast corner of Mr. Cross' house; elevation, 11.10 feet above gauge zero. (2.) A bolt-head in the itial point stake on the right bank; elevation, 5.45 feet above gauge zero.

DISCHARGE Measurements of North Fork of Frenchman River, at Cross' Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 21	F. T. Fletcher	13.0	4.7	0.81	.....	3.8
July 21	....do	12.5	4.9	1.00	.....	4.9
July 25	....do	12.0	4.4	0.91	.....	4.0
1909.						
April 19	F. T. Fletcher	19.5	17.6	1.09	.....	19.2*
May 19	H. R. Carscallen	12.8	12.2	1.57	0.89	19.2
June 26	....do	13.0	9.7	1.56	0.795	15.2
July 12	....do	12.5	14.2	2.05	1.025	29.1
August 2	....do	12.6	6.9	1.26	0.66	8.7
August 21	....do	13.0	6.1	1.16	0.66	7.1
September 20	....do	13.0	6.3	1.28	0.715	8.1

*Measurement made above the mouth of Rose Creek. Gauging made at same time on Rose Creek, estimated discharge 5.0 sec.-ft. Hence total discharge of the North Fork of the Frenchman River is 24.2 sec.-ft

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DAILY Gauge Height and Discharge of North Fork of Frenchman River, at Cross' Ranch for 1908.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.5	2.1	0.6	5.6	0.6	5.6
2	0.5	2.1	0.6	5.6	0.6	5.6
3	0.5	2.1	0.6	5.6	0.6	5.6
4	0.5	2.1	0.6	5.6	0.6	5.6
5	0.5	2.1	0.6	5.6	0.7	9.7
6	0.5	2.1	0.6	5.6	0.7	9.7
7	0.5	2 1	0.6	5.6	0.7	9.7
8	0.6	5.6	0.6	5.6	0.7	9.7
9	0.6	5.6	0.6	5.6	0.7	9,7
10	0.5	2.1	0.6	5.6	0.7	9.7
11	0.5	2.1	0.6	5.6	0.7	9.7
12	0.6	5.6	0.6	5.6	0.7	9.7
13	0.6	5.6	0.6	5.6	1.7	9.7
14	0.6	5.6	0.6	5.6	0.7	9.7
15	0.6	5.6	0.6	5.6	0.7	9.7
16	0.6	5.6	0.6	5.6	0.7	9.7
17	0.6	5.6	0.6	5.6	0.7	9.7
18	0.6	5.6	0.6	5.6	0.7	9.7
19	0.6	5.6	0.6	5.6	0.7	9.7
20	0.6	5.6	0.6	5.6	.....	.....
21	0.6	5.6	0.6	5.6	.....	.....
22	0.6	5.6	0.6	5.6	.....	.....
23	0.6	5.6	0.6	5.6	.....	.....
24	0.6	5.6	0.6	5.6	.....	.....
25	0.6	5.6	0.6	5.6	.....	.....
26	0.6	5.6	0.6	5.6	.....	.....
27	0.6	5.6	0.6	5.6	.....	.....
28	0.6	5.6	0.6	5.6	.....	.....
29	0.6	5.6	0.6	5.6	.....	.....
30	0.6	5.6	0.6	5.6	.....	.....
31	0.6	5.6	.....	.....	.....	.....

DAILY Gauge Height and Discharge of North Fork of Frenchman River, at Cross' Ranche, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.8	14.9	0.9	20.1	0.7	9.7
2	0.9	20.1	0.8	14.9	0.7	9.7
3	1.3	41.3	0.8	14.9	0.7	9.7
4	1.7	62.6	0.8	14.9	0.7	9.7
5	1.7	62.6	0.8	14.9	1.4	46.6
6	1.3	41.3	0.8	14.9	1.1	30.7
7	1.0	25.4	0.8	14.9	0.8	14.9
8	1.2	36.0	0.9	20.1	0.8	14.9
9	0.9	20.1	0.9	20.1	0.8	14.9
10	0.9	20.1	0.9	20.1	0.8	14.9
11	1.0	25.4	0.9	20.1	1.1	30.7
12	1.0	25.4	0.8	14.9	1.0	25.4
13	0.9	20.1	0.8	14.9	0.9	20.1
14	0.9	20.1	0.8	14.9	0.8	14.9
15	0.9	20.1	0.7	9.7	0.7	9.7
16	0.9	20.1	0.7	9.7	0.7	9.7
17	1.3	41.3	0.7	9.7	0.7	9.7
18	1.2	36.0	0.7	9.7	0.9	20.1
19	0.9	20.1	0.7	9.7	0.9	20.1
20	0.9	20.1	1.4	46.6	0.8	14.9
21	0.9	20.1	2.0	78.8	0.7	9.7
22	0.8	14.9	1.0	25.4	0.7	9.7
23	0.9	20.1	0.9	20.1	0.7	9.7
24	0.9	20.1	0.8	14.9	0.7	9.7
25	0.9	20.1	0.8	14.9	0.7	9.7
26	0.9	20.1	0.8	14.9	0.7	9.7
27	0.9	20.1	0.8	14.9	0.9	20.1
28	0.9	20.1	0.8	14.9	0.9	20.1
29	0.9	20.1	0.8	14.9	0.8	14.9
30	0.9	20.1	0.8	14.9	0.75	12.3
31	0.9	20.1	.....	.....	0.7	9.7

DAILY Gauge Height and Discharge of North Fork of Frenchman River, at Cross' Ranche, for 1909—*Concluded.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.7	9.7	0.65	7.65	0.65	7.65
2	0.65	7.65	0.65	7.65	0.65	7.65
3	0.65	7.65	0.65	7.65	0.65	7.65
4	0.65	7.65	0.7	9.7	0.65	7.65
5	0.65	7.65	0.7	9.7	0.65	7.65
6	0.65	7.65	0.7	9.7	0.65	7.65
7	0.65	7.65	0.7	9.7	0.65	7.65
8	0.7	9.7	0.7	9.7	0.65	7.65
9	0.65	7.65	0.7	9.7	0.7	9.7
10	0.65	7.65	0.7	9.7	0.7	9.7
11	0.65	7.65	0.7	9.7	0.7	9.7
12	0.65	7.65	0.7	9.7	0.75	12.3
13	0.65	7.65	0.65	7.65	0.75	12.3
14	0.65	7.65	0.65	7.65	0.75	12.3
15	0.65	7.65	0.7	9.7	0.75	12.3
16	0.65	7.65	0.7	9.7	0.75	12.3
17	0.65	7.65	0.65	7.65	0.75	12.3
18	0.65	7.65	0.65	7.65	0.75	12.3
19	0.65	7.65	0.7	9.7	0.75	12.3
20	0.65	7.65	0.7	9.7	0.75	12.3
21	0.65	7.65	0.7	9.7	0.75	12.3
22	0.6	5.6	0.7	9.7	0.75	12.3
23	0.6	5.6	0.65	7.65	0.7	9.7
24	0.6	5.6	0.65	7.65	0.7	9.7
25	0.6	5.6	0.65	7.65	0.7	9.7
26	0.6	5.6	0.65	7.65	0.7	9.7
27	0.65	7.65	0.65	7.65	0.7	9.7
28	0.65	7.65	0.65	7.65	0.7	9.7
29	0.65	7.65	0.65	7.65	0.7	9.7
30	0.65	7.65	0.65	7.65	0.7	9.7
31	0.65	7.65	.....	.....	0.7	9.7

NOTE.—Discharges for all gauge heights over 1.05 feet computed.

MONTHLY Discharge of North Fork of Frenchman River, at Cross' Ranche, for 1908-9.

[Drainage area, 58 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth-in inches on drainage area.	Total in acre-feet.
1908.						
August	5.6	2.1	4.6	.079	.091	282
September	5.6	5.6	5.6	.097	.108	333
October (1–19)	9.7	5.6	8.8	.152	.107	333
The period						948
1909						
May	63	14.9	26.1	.450	.519	1.605
June	79	9.7	18.6	.321	.358	1.107
July	47	9.7	15.7	.270	.311	965
August	10	5.6	7.5	.128	.148	458
September	10	7.6	8.7	.150	.167	515
October	12	7.6	10.1	.174	.201	621
The period						5.271

MISCELLANEOUS MEASUREMENTS.

Miscellaneous Measurements of Rose Creek, at a point on Sec. 22, Tp. 7, R. 22, west of the 3rd meridian, near its mouth, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Discharge.
1909.		*Feet.*	*Sq.-ft.*	*Ft. per sec.*	*Sec.-ft.*
April 19	F. T. Fletcher	9.0	7.66	0.65	5.02
August 2	....do	1.25	*	0.12	0.17
September 20	H. R. Carscallen	1.25	*	0.35	0.03

*Weir measurements.

MISCELLANEOUS Measurements of Calf Creek, at a point on Sec. 5, Tp. 8, R. 22, west of the 3rd meridian, near its mouth, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Discharge.
1908.		*Feet.*	*Sq.-ft.*	*Ft. per sec.*	*Sec.-ft.*
July 17	F. T. Fletcher	5.2	1.38	1.54	2.130
1909.					
August 2	H. R. Carscallen	7.0	2.66	0.55	1.48
August 23	....do	7.0	2.46	0.63	1.56
September 20	....do	7.5	2.71	0.57	1.83

Miscellaneous Discharge Measurements of Black Tail Creek, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
			N. W. ¼ of	*Feet.*	*Sq.-ft.*	Sec.-ft.
July 14	H. R. Carscallen		Sec. 30–6–23–3	1.25	*0.09	0.11
August 3	do		Sec. 31–6–23–3	1.25	*0.06	0.07
September 24	do		Sec. 30–6–23–3 near month.	2.6	0.61	0.17

*Weir measurements.

Fairwell Creek at Bolton's Ranche.

This station was established June 10, 1909, by H. R. Carscallen. It is located about eleven miles southeast of Belanger P. O., at Myles C. Bolton's ranche, on Sec. 30, Tp. 6, R. 24, west of the 3rd meridian.

The channel is straight for 75 feet upstream, and curves slightly to the right for 50 feet downstream. Both banks are comparatively low and will overflow at high stages of the stream. The banks are covered with brush above and below the station. The bed of the stream is composed of sand and coarse gravel. The current is sluggish at the station, but swift a short distance below.

The gauge, which was read daily during the season of 1909, by Myles C. Bolton, is a rod graduated to feet and hundredths, attached vertically to a post sunk in the bed of the stream at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) The head of a spike driven into the pointed top of a willow stump about 50 feet southeast of the gauge, the stump blazed and marked B. M. with red paint; elevation, 6.25 feet above the datum of the gauge. (2.) The head of a spike surrounded by a circle of nail-heads in a notch cut in a large poplar tree 60 feet southeast of the gauge, the tree blazed and marked B. M. with red paint; elevation, 5.08 feet above the datum of the gauge.

Discharge measurements are made a short distance below the gauge by wading. Owing to the low banks high-water measurements are not obtainable. Beaver dams below the station have given some trouble during the season of 1909. The initial point for soundings is a square stake driven close to the ground at the left bank and marked I.P. 0·0. From reports of men living in this district it was learned that the creek was perfectly dry, during the latter part of the season of 1909, within a mile upstream of the gauge, although a continuous flow was obtained at the station during the entire season. This phenomenon is peculiar to many of the streams in the Cypress Hills district.

Discharge Measurements of Fairwell Creek, at Bolton's Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq.-ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 6	F. T. Fletcher	10.0	2.97	0.72		2.15
1909.						
May 21	H. R. Carscallen	27.0	33.1	1.54		51.1
June 10	do	25.5	16.0	0.73	1.94	11.6
June 28	do	24.5	27.3	2.99	2.75	81.8
July 15	do	24.0	21.0	2.41	2.555	50.7
August 25	do	24.0	16.6	0.39	2.00	6.4
September 25	do	17.5	6.2	0.66	1.92	4.1

Daily Gauge Height and Discharge of Fairwell Creek, at Bolton's Ranche, for 1909.

Day.	June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.*
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.34	25.95	2.12	11.1	1.95	4.9	1.90	3.8
2	.....	.....	2.35	26.8	2.11	10.6	1.95	4.9	1.90	3.8
3	.....	.....	2.35	26.8	2.10	10.1	1.96	5.2	1.89	3.6
4	.....	.....	2.35	26.8	2.07	8.85	1.95	4.9	1.89	3.6
5	.....	.....	2.35	26.8	2.06	8.4	1.95	4.9	1.89	3.6
6	.....	.....	2.94	116.0*	2.05	8.	1.95	4.9	1.89	3.6
7	.....	.....	2.60	57.2	2.04	7.7	1.95	4.9	1.89	3.6
8	.....	.....	2.50	43.2	2.03	7.35	1.95	4.9	1.89	3.6
9	.....	.....	2.50	43.2	2.02	7.05	1.95	4.9	1.89	3.6
10	1.94	11.6	2.50	43.2	2.02	7.05	1.95	4.9	1.88	3.45
11	1.93	11.05	3.95	364.0*	2.03	7.35	1.95	4.9	1.88	3.45
12	1.92	10.55	3.00	128.0*	2.03	7.35	1.94	4.7	1.88	3.45
13	1.90	9.60	2.75	81.8	2.03	7.35	1.94	4.7	1.88	3.45
14	1.94	11.6	2.65	64.9	2.04	7.7	1.94	4.7	1.88	3.45
15	1.94	11.6	2.55	50	2.04	7.7	1.94	4.7	1.88	3.45
16	1.94	11.6	2.50	43.2	2.04	7.7	1.94	4.7	1.87	3.25
17	1.93	11.05	2.21	16.15	2.04	7.7	1.94	4.7	1.87	3.25
18	1.93	11.05	2.25	18.8	2.04	7.7	1.93	4.45	1.87	3.25
19	1.94	11.6	2.23	17.5	2.02	7.05	1.93	4.45	1.87	3.25
20	4.15	471.0*	2.16	13.2	2.02	7.05	1.93	4.45	1.87	3.25
21	4.10	443.0*	2.14	12.1	2.01	6.7	1.93	4.45	1.87	3.25
22	3.13	285.0*	2.13	11.6	2.01	6.7	1.93	4.45	1.87	3.25
23	2.75	81.8	2.10	10.1	2.00	6.4	1.93	4.45	1.87	3.25
24	2.82	94.4*	2.07	8.85	2.00	6.4	1.92	4.25	1.88	3.45
25	2.75	81.8	2.04	7.70	2.00	6.4	1.92	4.25	1.88	3.45
26	2.51	44.55	2.05	8.00	1.99	6.1	1.91	4	1.88	3.45
27	2.50	43.2	2.07	8.85	1.99	6.1	1.91	4	1.88	3.45
28	2.75	81.8	2.13	11.6	1.98	5.8	1.91	4	1.88	3.45
29	2.55	50	2.31	23.35	1.96	5.2	1.90	3.8	1.88	3.45
30	2.40	31.7	2.19	14.9	1.95	4.9	1.90	3.8	1.88	3.45
31	.....	.....	2.14	12.1	1.95	4.9	.....	.....	1.88	3.45

*Discharges computed.

Monthly Discharge of Fairwell Creek, at Bolton's Ranche, for 1909.

[Drainage area 135 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
June, 10–30	471	9.6	86.6	.642	.501	3,609
July	364	7.7	44	.326	.376	2,703
August	11.1	4.9	7.3	.054	.062	449
September	5.2	3.8	4.57	.034	.038	272
October	3.8	3.25	3.45	.026	.030	212
The period	.....	.....	.....	.....	.....	7,245

Davis Creek at Bettington's Ranche.

This station was established May 24, 1909, by H. R. Carscallen. It is located on Sec. 29, Tp. 6, R. 25, west of the 3rd meridian, about five miles southeast of Belanger, P.Q. and about one-half mile from the mouth of the creek.

The channel is straight for 150 feet above and 200 feet below the station. The right bank is comparatively high and will not overflow except in cases of extreme flood; the left bank is low and will overflow at high-water stages of the stream. Both banks are covered with brush. The bed of the stream is composed of sand and coarse gravel and there may be a slight sub-surface flow at this point. The current is swift.

The gauge is a plain staff, graduated to feet and hundredths, attached vertically to a post sunk in the bed of the stream at the right bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) The head of a spike in the top of a pointed willow stump about 15 feet below the gauge on the right bank, the stump blazed and marked B. M. with red paint; elevation 5.05 feet above gauge zero. (2) The head of a spike surrounded by a circle of nail-heads in the top of a log projecting from the southeast corner of Mr. Bettington's house; elevation, 9.05 feet above gauge zero. The gauge is read once each day by J. H. G. Bettington.

Discharge measurements are made at or near the gauge by wading. Owing to the left bank being low, high-water measurements are not obtainable. During the latter part of the season of 1909, considerable annoyance was experienced on account of the construction by beavers of dams below the gauge. These dams raised the water above its normal level and considerably affected the observer's gauge height records.

Discharge Measurements of Davis Creek, at Bettington's Ranche in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 21	F. T. Fletcher	5.0	0.83	0.32	.....	0.28
1909.						
June 11	H. R. Carscallen	12.5	5.10	1.16	1.14	5.94
June 29	....do	16.0	14.6	1.90	1.525	27.9
July 15	....do	15.0	11.6	1.44	1.355	16.8
August 5	....do	14.0	7.28	0.25	1.045	1.81
August 26	....do	9.2	2.84	0.59	1.00	1.67
September 27	....do	7.6	1.77	0.26	0.91	0.46

Daily Gauge Height and Discharge of Davis Creek, at Bettington's Ranche, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.2	8.8	1.5	26.1
2	.....	.....	1.2	8.8	1.4	19.8
3	.....	.....	1.2	8.8	1.2	8.8
4	.....	.....	1.1	4.5	1.2	8.8
5	.....	.....	1.1	4.5	1.4	19.8
6	.....	.....	1.1	4.5	2.0	64.0*
7	.....	.....	1.1	4.5	1.8	47.8*
8	.....	.....	1.1	4.5	1.4	19.8
9	.....	.....	1.2	8.8	1.3	14.1
10	.....	.....	1.1	4.5	1.3	14.1
11	.....	.....	1.1	4.5	1.6	32.8*
12	.....	.....	1.1	4.5	1.6	32.8*
13	.....	.....	1.1	4.5	2.0	64.0*
14	.....	.....	1.1	4.5	1.6	32.8*
15	.....	.....	1.1	4.5	1.4	19.8
16	.....	.....	1.1	4.5	1.4	19.8
17	.....	.....	1.2	8.8	1.3	14.1
18	.....	.....	1.3	14.1	1.5	26.1
19	.....	.....	1.3	14.1	1.4	19.8
20	.....	.....	5.3	.....†	1.3	14.1
21	.....	.....	6.0	.....†	1.3	14.1
22	.....	.....	2.2	.....†	1.2	8.8
23	*2.8†	.....	1.7	40.1*	1.2	8.8
24	1.9	55.8*	1.6	32.8*	1.1	4.5
25	1.5	26.1	1.6	32.8*	1.1	4.5
26	1.4	19.8	1.6	32.8*	1.1	4.5
27	1.3	14.1	1.6	32.8*	1.1	4.5
28	1.3	14.1	1.7	40.1*	1.2	8.8
29	1.3	14.1	1.6	32.8*	1.3	14.1
30	1.2	8.8	1.55	29.4	1.1	4.5
31	1.2	8.8	.....	.....	1.1	4.5

Daily Gauge Height and Discharge of Davis Creek, at Bettington's Ranche, for 1909.—*Con.*

Day.	August.		September.		October.		November.	
	Gauge height.	Dis. charge.	Gauge height.	Dis-charge.	Gauge. height.	Dis. charge.	Gauge height.	Dis-charge.
	Feet.	*Sec.-ft.*	*Eeet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	1.1	4.5	1.0	1.65	0.9	0.4	1.0	1.65
2	1.1	4.5	1.0	1.65	0.9	0.4	1.0	1.65
3	1.1	4.5	1.0	1.65	0.9	0.4	1.0	1.65
4	1.1	4.5	1.0	1.65	0.9	0.4	.....	.....
5	1.0	1.65	1.0	1.65	0.9	0.4		
6	1.0	1.65	1.0	1.65	0.9	0.4		
7	1.0	1.65	1.0	1.65	0.9	0.4		
8	1.0	1.65	1.0	1.65	0.9	0.4		
9	1.0	1.65	1.0	1.65	0.9	0.4		
10	1.0	1.65	1.0	1.65	0.9	0.4		
11	1.0	1.65	1.0	1.65	0.9	0.4		
12	1.0	1.65	1.0	1.65	0.9	0.4		
13	1.0	1.65	1.0	1.65	0.9	0.4		
14	1.0	1.65	1.0	1.65	0.9	0.4		
15	1.0	1.65	1.0	1.65	0.9	0.4		
16	1.0	1.65	1.0	1.65	0.9	0.4		
17	1.0	1.65	1.0	1.65	0.9	0.4		
18	1.0	1.65	1.0	1.65	0.9	0.4		
19	1.0	1.65	1.0	1.65	0.9	0.4		
20	1.0	1.65	1.0	1.65	0.9	0.4		
21	1.0	1.65	0.9	0.4	0.9	0.4		
22	1.0	1.65	0.9	0.4	0.9	0.4		
23	1.0	1.65	0.9	0.4	0.9	0.4		
24	1.0	1.65	0.9	0.4	0.9	0.4		
25	1.0	1.65	0.9	0.4	0.9	0.4		
26	1.0	1.65	0.9	0.4	0.9	0.4		
27	1.0	1.65	0.9	0.4	1.0	1.65		
28	1.0	1.65	0.9	0.4	1.0	1.65		
29	1.0	1.65	0.9	0.4	1.0	1.65		
30	1.0	1.65	0.9	0.4	1.0	1.65		
31	1.0	1.65	.....	.....	1.0	1.65		

*Discharges computed. †Data for computation of discharges insufficient.

Monthly Discharge of Davis Creek, at Bettington's Ranche, for 1909.

[Drainage area, 42 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per spuare mile.	Depth in inches on drainage area.	Total in acre-feet.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
May (24-31)	55.8	8.8	20.2	.481	.143	321
June (1-19, 23-30)	40.1	4.5	14.8	.353	.354	793
July	64	4.5	19.4	.461	.531	1192
August	4.5	1.65	2.02	.048	.055	124
September	1.65	0.4	1.23	.029	.032	73
October	1.65	0.4	0.60	.014	.016	37
November (1-3)	1.65	1.65	1.65	.039	.004	10
The period						2550

Note.—June 20, 21 and 22, flood period, not included.

Belanger Creek at Garrison's Ranche, near Belanger P.O.

This station was established June 12, 1909, by H. R. Carscallen. It is located on Sec. 18, Tp. 7, R. 25, west of the 3rd meridian, one hundred and fifty yards west of Garrison's Ranche Belanger, P.O., and about twenty-seven miles south of Maple Creek.

The channel is straight for 100 feet above and 125 feet below the station. Both banks are comparatively high but will overflow in cases of extreme flood. The ground on the left bank is very rough and broken. Both banks are covered with low underbrush at the station and with large willow brush above and below. The bed of the stream is composed of sand and coarse gravel. The current is moderate at low stages.

The gauge, which is read daily by G. C. Garrison, is a plain staff, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the creek at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) The head of a spike surrounded by a circle of nail heads in the top of the initial point stake on the left bank, marked B. M. with red paint; elevation, 5.24 feet above the zero of the gauge. (2) The head of a spike driven into the top of a pointed willow stump about 40 feet northeast of the gauge on the left bank, the stump blazed and marked B. M. in red paint; elevation, 7.27 feet above the zero of the gauge.

Discharge measurements are made at the station by wading. No flood measurements are obtainable owing to the banks overflowing at extreme flood stages. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. o.o.

Discharge Measurements of Belanger Creek at Garrison's ranche in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 12	H. R. Carscallen	18.0	13.9	0.64	1.55	8.86
June 30	....do	19.5	25.0	1.54	2.11	38.5
July 17	....do	18.2	17.2	0.87	1.74	14.9
August 6	....do	18.5	15.9	0.61	1.62	9.69
August 26	....do	18.5	14.2	0.45	1.515	6.44
September 25	....do	18.5	12.7	0.37	1.445	4.72

DAILY Gauge Height and Discharge of Belanger Creek, at Garrison's Ranche, for 1909.

Day.	June.		July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.2	45.4	1.4	4.	1.4	4.	1.4	4
2	.....	.....	2.2	45.4	1.4	4.	1.4	4.	1.4	4
3	.....	.....	2.2	45.4	1.4	4.	1.4	4.	1.4	4
4	.....	.....	2.1	38.	1.6	9.	1.4	4.	1.4	4
5	.....	.....	2.1	38.	1.6	9.	1.4	4.	1.4	4
6	.....	.....	2.1	38.	1.6	9.	1.4	4.	1.4	4
7	.....	.....	2.0	30.8	1.6	9.	1.4	4.	1.4	4
8	.....	.....	2.0	30.8	1.6	9.	1.4	4.	1.4	4
9	.....	.....	2.3	53.2	1.55	7.5	1.4	4.	1.4	4
10	.....	.....	2.1	38.	1.55	7.5	1.4	4.	1.4	4
11	.....	.....	2.1	38.	1.55	7.5	1.4	4.	1.4	4
12	1.6	9.	2.1	38.	1.5	6.	1.4	4.	1.4	4
13	1.55	7.5	2.1	38.	1.5	6.	1.4	4.	1.4	4
14	1.5	6.	1.9	24	1.5	6.	1.4	4.	1.4	4
15	1.5	6.	1.8	18.	1.5	6.	1.4	4.	1.4	4
16	1.5	6.	1.8	18.	1.5	6.	1.4	4.	1.4	4
17	1.6	9.	1.7	13.	1.5	6.	1.4	4.	1.4	4
18	2.0	30.8	1.7	13.	1.5	6.	1.4	4.	1.4	4
19	2.4	61.9*	1.7	13.	1.5	6.	1.4	4.	1.4	4
20	4.1	296. *	1.6	9.	1.5	6.	1.4	4.	1.4	4
21	6.1	.....†	1.6	9.	1.5	6.	1.4	4.	1.4	4
22	2.6	82.5*	1.6	9.	1.5	6.	1.45	5.	1.45	5
23	2.3	53.2	1.5	6.	1.5	6.	1.45	5.	1.45	5
24	2.1	38.	1.5	6.	1.5	6.	1.45	5.	1.5	6
25	2.2	45.4	1.5	6.	1.5	6.	1.45	5.	1.5	6
26	2.1	38.	1.4	4.	1.5	6.	1.45	5.	1.5	6
27	2.1	38.	1.4	4.	1.5	6.	1.45	5.	1.5	6
28	2.1	38.	1.4	4.	1.5	6.	1.45	5.	1.5	6
29	2.1	38.	1.4	4.	1.5	6.	1.4	4.	1.5	6
30	2,1	38.	1.4	4.	1.4	4.	1.4	4.	1.5	6
31	.....	.....	1.4	4.	1.4	4.	.....	.....	1.5	6

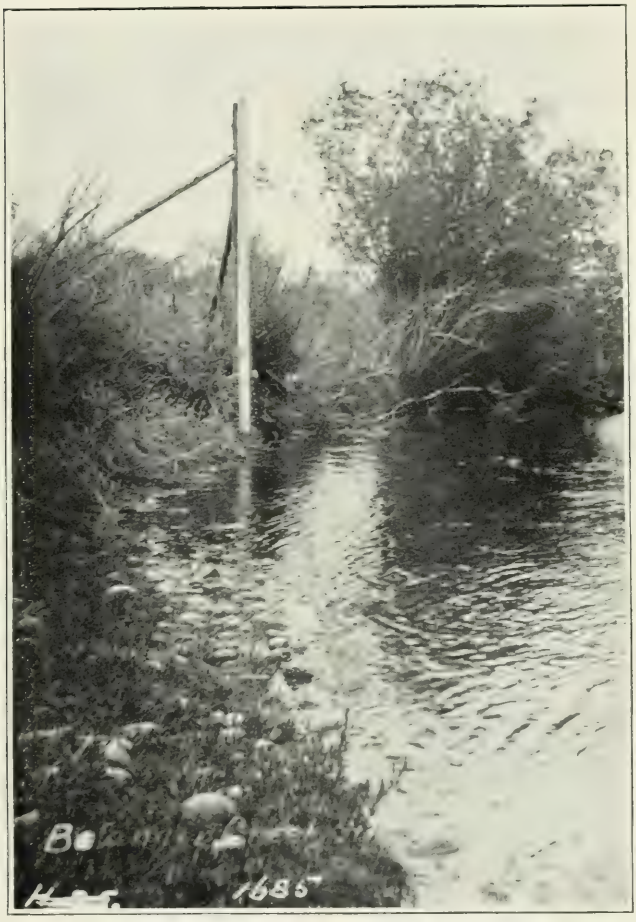
*Discharges computed. †Data insufficient to compute discharge.

MONTHLY Discharge of Belanger Creek, at Garrison's Ranche, for 1909.

[Drainage area, 47 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square. mile.	Depth in inches on drainage. area.	Total in acre-feet.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
June....(12-20, 22-30)	296	6	46.7	.994	.665	1669
July	53.2	4	22.1	.470	.542	1358
August	9	4	6.3	.134	.154	387
September	5	4	4.2	.090	.100	252
October	6	4	4.6	.097	.112	282
The period	.....	.....	.....	.....	.....	3948

NOTE.—June 21, flood interval, not included.



Gauge on Bélanger's Creek at Garrison's Ranche.

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Miscellaneous Measurements.

Miscellaneous Measurements of Belanger Creek in 1908-9.

Date.	Hydrographer.	Locality.	Width.	Area of Section.	Discharge.
1908.			*Feet.*	*Sq. ft.*	*Sec.-ft.*
June 10	R. J. Burley	Centre of Sec. 12-8-26-3.	4.0	1.91	1.84
June 10	do	do do	3.0	.....*	1.81
August 17	F. T. Fletcher	S. W. ¼ Sec. 30-6-25-3	10.5	2.61	2.75
August 20	do	Sec. 21-8-26-3	3.0	.....*	0.61
August 28	do	Sec. 14-8-26-3	3.0	1.35	0.97
1909.					
May 25	H. R. Carscallen	Sec. 30-6-25-3	9.0	16.7	24.4
May 26	do	Sec. 7-7-25-3 †	12.5	12.2	10.7

*Weir measurements. †Measurements made below mouth of Lone Pine Creek.

Lone Pine Creek at Hewitt's Ranche.

This station was established July 17, 1909, by H. R. Carscallen. It is located on Sec. 27, Tp. 7, R. 26, west of the 3rd meridian, about two miles west of the surveyed trail from Belanger, P.O. to Maple Creek and about four miles west of Belanger, P.O.

The channel is straight for 35 feet above and 45 feet below the station. The right bank is high and not liable to overflow; the left bank is comparatively low and will overflow at high stages of the stream. The surface of the ground on the left bank is very rough and broken. The bed of the stream is composed of sand and coarse gravel. The current is smooth and swift.

The gauge, which is read daily by S. W. Hewitt, is a rod, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the stream at the right bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) A spike-head in the top of the final point stake driven close to the ground on the right bank, marked B. M. in red paint; elevation, 5.63 feet above gauge zero. (2) The head of a spike in the top of a pointed willow stump on the left bank, 97 feet north of the gauge, the stump blazed and marked B. M.; elevation, 4.59 feet above gauge zero.

Discharge measurements are made near the gauge by wading and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. 0'0. The station is situated below ditches constructed by A. P. McDonald and S. W. Hewitt and in the case of water being used in these ditches the records at the gauge would not give the complete discharge of the creek. So far as is known, no water was diverted from the stream in 1909 after the gauge was established.

DISCHARGE Measurements of Lone Pine Creek at Hewitt's ranche in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge. height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
August 17	F. T. Fletcher	3.0	*	0.15*	.....	0.61
August 17	....do	4.0	1.12	0.56	.....	0.63
1909.						
July 17	H. R. Carscallen	4.3	2.99	0.76	1.70	2.26
August 6	....do	4.0	1.68	0.70	1.39	1.18
August 26	....do	1.25	*	20.9*	1.24	0.63
September 28	....do	3.4	1.34	0.60	1.285	0.81

*Weir measurements.

DAILY Gauge Height and Discharge of Lone Pine Creek, at Hewitt's Ranche, for 1909.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.45	1.33	1.25	0.72	1.25	0.72
2	.....	.....	1.45	1.33	1.25	0.72	1.25	0.72
3	.....	.....	1.4	1.16	1.25	0.72	1.25	0.72
4	.....	.....	1.4	1.16	1.25	0.72	1.3	0.85
5	.....	.....	1.4	1.16	1.25	0.72	1.3	0.85
6	.....	.....	1.35	1.	1.25	0.72	1.3	0.85
7	.....	.....	1.35	1.	1.25	0.72	1.35	1.
8	.....	.....	1.5	1.51	1.25	0.72	1.35	1.
9	.....	.....	1.4	1.16	1.25	0.72	1.35	1.
10	.....	.....	1.35	1.	1.25	0.72	1.35	1.
11	.....	.....	1.3	0.85	1.3	0.85	1.35	1.
12	.....	.....	1.3	0.85	1.25	0.72	1.35	1.
13	.....	.....	1.3	0.85	1.3	0.85	1.35	1.
14	.....	.....	1.3	0.85	1.3	0.85	1.35	1.
15	.....	.....	1.3	0.85	1.3	0.85	1.35	1.
16	.....	.....	1.25	0.72	1.3	0.85	1.40	1.16
17	1.7	2.26	1.25	0.72	1.25	0.72	1.35	1.
18	1.75	2.47	1.25	0.72	1.3	0.85	1.35	1.
19	1.7	2.26	1.25	0.72	1.35	1.	1.35	1.
20	1.55	1.69	1.25	0.72	1.3	0.85	1.35	1.
21	1.5	1.51	1.25	0.72	1.3	0.85	1.35	1.
22	1.55	1.69	1.25	0.72	1.3	0.85	1.35	1.
23	1.52	1.60	1.25	0.72	1.3	0.85	1.35	1.
24	1.52	1.60	1.25	0.72	1.3	0.85	1.35	1.
25	1.52	1.60	1.25	0.72	1.3	0.85	1.35	1.
26	1.55	1.69	1.25	0.72	1.3	0.85	1.35	1.
27	1.58	1.79	1.25	0.72	1.3	0.85	1.35	1.
28	1.65	2.07	1.25	0.72	1.25	0.72	1.35	1.
29	1.65	2.07	1.25	0.72	1.25	0.72	1.40	1.16
30	1.55	1.69	1.25	0.72	1.25	0.72	1.40	1.16
31	1.50	1.51	1.25	0.72	.....	.....	1.40	1.16

Monthly Discharge of Lone Pine Creek, at Hewitt's Ranche, for 1909.

[Drainage area, 4 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
July (17–31)	2.47	1.51	1.83	.458	.255	54
August	1.51	0.72	0.89	.220	.254	55
September	1.00	0.72	0.79	.200	.223	47
October	1.16	0.72	0.98	.245	272	60
The period						216

Miscellaneous Measurement.

miscelaneous measurement of lone pine creek in 1909.

On May 26, 1909, a measurement of Lone Pine Creek was made on Sec. 7, Tp. 7, R. 25, west of the 3rd meridian, near its mouth, the estimated discharge being 0.67 sec.-ft.

Sucker Creek at Whitcomb and Zeigler's Ranche.

This station was established May 26, 1909 by H. R. Carscallen. It is located on the north boundary of Sec. 24, Tp. 6, R. 26, west of the 3rd meridian, about five miles south of Belanger Post Office and about thirty-two miles south of Maple Creek.

The channel is straight for 25 feet above and 45 feet below the station. The right bank is comparatively low and will overflow at high stages; the left bank is high and not liable to overflow. The right bank is sparsely covered with brush; the left bank is free from brush at the station. The bed of the stream is composed of sand and coarse gravel. The current is sluggish at the station but swift immediately below.

The gauge, which is read once each day by P. A. Zeigler, is a plain staff, graduated to feet and hundredths attached to a vertical post sunk in the bed of the stream at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) A circle of nail-heads in a log near the ground at the northeast corner of a stable; elevation, 12.27 feet above the zero of the gauge. (2) A spike-head in the top of the initial point stake on the left bank, marked B. M.; elevation, 5.39 feet above the zero of the gauge.

Discharge measurements are made at or near the gauge by wading and at very low stages a weir is used. High water measurements are not obtainable owing to the right bank overflowing at high stages of the stream. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. 0·0.

DISCHARGE Measurements of Sucker Creek at Whitcomb and Zeigler's Ranche in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
May 26	H. R. Carscallen	12.0	6.72	1.44	0.94	9.66
June 11	do	11.0	7.19	0.46	0.66	3.33
June 29	do	13.7	19.0	1.47	1.455	27.9
August 5	do	7.5	1.81	0.65	0.54	1.17
August 26	do	1.25	*	0.305	0.47	0.67
September 27	do	7.1	2.29	0.85	0.57	1.94

*Weir measurement.

DAILY Gauge Height and Discharge of Sucker Creek, at Whitcomb and Ziegler's Ranche, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			0.7	4.	1.1	14.4
2			0.7	4.	1.0	11.35
3			0.6	2.3	0.9	8.6
4			0.6	2.3	0.9	8.6
5			0.6	2.3	2.3	80.9*
6			0.6	2.3	1.7	39.6*
7			0.7	4.	1.3	21.4
8			0.75	5.	1.1	14.4
9			0.8	6.1	1.1	14.4
10			0.65	3.1	1.0	11.35
						11.35
11			0.7	4.	1.0	
12			0.75	5.	1.1	14.4
13			0.65	3.1	1.05	12.9
14			0.64	2.95	1.0	11.35
15			0.63	2.8	0.9	8.6
16			0.65	3.1	0.8	6.1
17			1.1	14.4	0.8	6.1
18			0.85	7.3	0.75	5.
19			1.10	14.4	0.70	4.
20			3.8	.....†	0.65	3.1
21			3.7	.....†	0.65	3.1
22			1.8	45.1*	0.65	3.1
23			1.6	34.5*	0.65	3.1
24			1.4	25.4	0.65	3.1
25	1.0	11.35	1.5	29.8	0.65	3.1
26	0.9	8.6	1.15	16.1	0.8	6.1
27	0.8	6.1	1.05	12.8	0.7	4.
28	0.8	6.1	2.4	90.4*	0.9	8.6
29	0.7	4.	1.5	29.8	0.8	6.1
30	0.7	4.	1.3	21.5	0.7	4.
31	0.7	4.	.....	.....	0.65	3.1

DAILY Gauge Height and Discharge of Sucker Creek, at Whitcomb and Ziegler's Ranche, for 1909.—*Concluded.*

Date.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.65	3.1	0.5	1.	0.58	2.
2	0.65	3.1	0.5	1.	0.58	2.
3	0.62	2.6	0.6	2.3	0.6	2.3
4	0.58	2.	0.55	1.6	0.61	2.45
5	0.5	1.0	0.55	1.6	0.61	2.45
6	0.5	1.	0.5	1.	0.61	2.45
7	0.5	1.	0.5	1.	0.61	2.45
8	0.6	2.3	0.5	1.	0.61	2.45
9	0.55	1.6	0.5	1.	0.61	2.45
10	0.5	1.	0.47	0.75	0.62	2.6
11	0.5	1.	0.52	1.25	0.62	2.6
12	0.5	1.	0.55	1.6	0.62	2.6
13	0.55	1.6	0.61	2.45	0.62	2.6
14	0.5	1.	0.61	2.45	0.62	2.6
15	0.5	1.	0.6	2.3	0.62	2.6
16	0.45	0.55	0.55	1.6	0.62	2.6
17	0.43	0.5	0.55	1.6	0.62	2.6
18	0.42	0.45	0.7	4.	0.62	2.6
19	0.42	0.45	0.65	3.1	0.62	2.6
20	0.42	0.45	0.65	3.1	0.62	2.6
21	0.43	0.5	0.65	3.1	0.62	2.6
22	0.45	0.55	0.7	4.	0.62	2.6
23	0.45	0.55	0.7	4.	0.62	2.6
24	0.48	0.8	0.65	3.1	0.62	2.6
25	0.5	1.	0.6	2.3	0.62	2.6
26	0.5	1.	0.6	2.3	0.62	2.6
27	0.6	2.3	0.55	1.6	0.62	2.6
28	0.55	1.6	0.55	1.6	0.62	2.6
29	0.55	1.6	0.55	1.6	0.62	2.6
30	0.52	1.25	0.55	1.6	0.62	2.6
31	0.5	1.			0.62	2.6

*—Discharges computed. †—Data required to compute discharges insufficient.

MONTHLY Discharge of Sucker Creek at Whitcomb and Zeigler's Ranche for 1909.

[Drainage area, 36 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
May (25-31)	11.3	4.0	6.3	.175	.046	88
June (1-19—22-30)	90.4	2.3	14.2	.395	.411	789
July	80.9	3.1	11.5	.318	.367	705
August	3.1	0.45	1.25	.035	.040	77
September	4.	0.75	2.03	.056	.063	121
October	2.6	2.	2.52	.070	.081	155
The period						1,935

NOTE.—June 20 and 21, flood interval, not included.

Oxarart Creek at Wylie's Ranche.

This station was established June 15, 1909, by H. R. Carscallen. It is located on Sec. 20, Tp. 6, R. 27, W. of the 3rd meridian, near the mouth of the creek and about thirty-five miles south of Maple Creek.

The channel upstream is straight for 10 feet and then divides into four small courses; the channel downstream is straight for 20 feet and then strikes an earth dam used in diverting water into Mr. Wylies' irrigation ditch. Here it makes a right-angled turn to the left, a small amount seeping through the dam and flowing down the natural course of the stream. The stream has a considerable fall and is subject to sudden and extreme floods necessitating the replacing of the dam below the station after every flood. This brings the records of gauge height observations under new sets of conditions and a different rating curve must be constructed for each change of conditions. Also low water records, only, are obtainable. The creek has a number of courses at low stages and the station although unsatisfactory is the only section to be found, within reach of an observer, where the total flow is contained in one channel during the low water period. The bed of the stream is composed of sand and coarse gravel. The current is sluggish at the station .

The gauge, which is read once each day by Mrs. J. Wylie, is a plain staff, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the stream at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) A spike-head in the top of the final point stake driven close to the ground on the right bank, marked B. M.; elevation, 4.71 feet above the zero of the gauge. (2) The top of three nails driven horizontally into a large willow tree, the tree blazed and marked B. M., on the strip of land upstream between the two courses of the stream furthest west and about 20 feet from the gauge; elevation, 4.45 feet above the zero of the gauge.

Discharge measurements are made a short distance above the station by wading. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I. P. o.o.

Discharge Measurements of Oxarart Creek at Wylie's Ranche in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
May 27	H. R. Carscallen	10.5	5.13	0.54	.....	2.77
June 15	do	10.3	4.59	0.57	.....	2.64
June 30	do	17.0	14.1	2.34	.....	33.2
July 19	do	12.9	9.05	0.61	1.10	5.53
August 6	do	15.0	7.28	0.50	1.015	3.64
September 7	do	9.5	4.84	0.41	0.86	1.99
September 28	do	6.7	2.52	0.57	0.81	1.45
November 23	do	6.1	1.84	0.38	0.74	0.70

Daily Gauge Height and Discharge of Oxarart Creek, at Wylie's Ranche, for 1909.

Day.	July.		August.		September.		October.		November.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.0	3.7	0.95	3.	0.85	1.8	0.8	1.35
2	.....	.....	1.0	3.7	0.95	3.	0.9	2.3	0.8	1.35
3	.....	.....	1.0	3.7	1.	3.7	0.9	2.3	0.8	1.35
4	.....	.....	1.0	3.7	1.	3.7	0.9	2.3	0.8	1.35
5	.....	.....	1.0	3.7	0.95	3.	0.9	2.3	0.8	1.35
6	.....	.....	1.0	3.7	0.9	2.3	0.9	2.3	0.8	1.35
7	.....	.....	1.0	3.7	0.85	1.8	0.9	2.3	0.8	1.35
8	.....	.....	1.0	3.7	0.85	1.8	0.9	2.3	0.8	1.35
9	.....	.....	1.0	3.7	0.85	1.8	0.9	2.3	0.8	1.35
10	.....	.....	1.0	3.7	0.85	1.8	0.9	2.3	0.8	1.35
11	.....	.....	1.0	3.7	0.9	2.3	0.9	2.3	0.8	1.35
12	.....	.....	1.0	3.7	0.9	2.3	0.9	2.3	0.8	1.35
13	.....	.....	1.1	5.5	0.9	2.3	0.9	2.3	0.8	1.35
14	.....	.....	1.0	3.7	0.9	2.3	0.9	2.3	0.78	1.15
15	.....	.....	1.0	3.7	0.9	2.3	0.9	2.3	0.78	1.15
16	.....	.....	1.0	3.7	0.85	1.8	0.9	2.3	0.78	1.15
17	.....	.....	0.95	3.	0.85	1.8	0.9	2.3	.....	.....
18	.....	.....	0.9	2.3	0.85	1.8	0.85	1.85	.....	.....
19	1.1	5.5	0.9	2.3	0.85	1.8	0.85	1.8	.....	.....
20	1.1	5.5	0.95	3.	0.85	1.8	0.85	1.85	.....	.....
21	1.1	5.5	0.95	3.	0.85	1.8	0.85	1.8	.....	.....
22	1.1	5.5	1.0	3.7	0.85	1.8	0.85	1.85	.....	.....
23	1.1	5.5	1.0	3.7	0.85	1.8	0.8	1.35	.....	.....
24	1.1	5.5	1.0	3.7	0.85	1.8	0.8	1.35	.....	.....
25	1.1	5.5	1.0	3.7	0.85	1.8	0.8	1.35	.....	.....
26	1.0	3.7	1.0	3.7	0.85	1.8	0.8	1.35	.....	.....
27	1.0	3.7	1.0	3.7	0.8	1.35	0.8	1.35	.....	.....
28	1.0	3.7	0.95	3.	0.8	1.35	0.8	1.35	.....	.....
29	1.0	3.7	0.95	3.	0.8	1.35	0.8	1.35	.....	.....
30	1.0	3.7	0.95	3.	0.85	1.8	0.8	1.35	.....	.....
31	1.0	3.7	0.95	3.	.....	.....	0.8	1.35	.....	.....

Monthly Discharge of Oxarart Creek at Wylie's Ranche, for 1909.

[Drainage area, 73 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
July (19-31)	5.5	3.7	4.67	.064	.031	120
August	5.5	2.3	3.51	.048	.055	216
September	3.7	1.35	2.11	.029	.032	126
October	2.3	1.35	1.93	.026	.030	119
November (1-16)	1.35	1.15	1.31	.018	.011	42
The period	.....	.....	.....	.....	.....	623

Miscellaneous Measurement.

MISCELLANEOUS DISCHARGE MEASUREMENT OF WAR LODGE CREEK IN 1909.

On September 7, 1909, a weir measurement of War Lodge Creek was made on Sec. 14, Tp. 7, R. 27, west of the 3rd meridian, the estimated discharge being 0.137 sec.-ft.

Swiftcurrent Creek at Pollock's Ranche.

This station was established May 18, 1909, by H. R. Carscallen. It is located on Sec. 22, Tp. 7, R. 21, west of the 3rd meridian, about four miles southwest of South Fork Post Office.

The channel is straight for 50 feet above and 15 feet below the station. Both banks are high and not liable to overflow. The bed of the stream is composed of sand and gravel. The current is moderate at ordinary stages becoming sluggish at very low stages of the stream.

The gauge, which is read daily by D. Pollock, is a plain staff, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the stream at the right bank and firmly stayed to the bank. The gauge is referred to bench marks as follows: (1) The top of a hardwood plug driven close to the ground on the left bank beside the corner post of Mr. Pollock's fence, the post blazed and marked B. M.; elevation, 10.16 feet above the zero of the gauge. (2) A hardwood plug driven close to the ground beside a post in the line of fence running east from the corner post and about 100 feet from it, the post blazed and marked B. M.; elevation 9.24 feet above the zero of the gauge. (3) The top of the ground log at the southeast corner of Mr. Pollock's house, marked with three nail-heads; elevation, 21.28 feet above the zero of the gauge.

Discharge measurements are made at or near the gauge by wading and at very low stages a weir is used. Mr. Pollock diverts water from the creek into an irrigation ditch about one-half mile above the gauge and when he is using water in his ditch the gauge does not record the total flow of the creek.

Discharge Measurements of Swiftcurrent Creek at Pollock's Ranche in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 4	F. T. Fletcher	3.0	0.68	1.99	.....	1.36
July 4	do	3.0	*	0.24	.....	1.21
1909.						
April 17	F. T. Fletcher	2.2	2.96	1.17	.....	3.47
May 18	H. R. Carscallen	4.2	2.06	1.39	1.03	2.86
June 5	do	4.0	1.25	0.63	0.765	0.79
June 25	do	3.8	1.89	0.54	0.85	1.03
July 10	do	1.25	*	0.34	0.90	0.78
July 30	do	4.5	1.85	0.80	1.005	1.49
August 20	do	1.25	*	0.342	0.93	0.79
September 24	do	4.4	1.70	0.43	0.85	0.74

*Weir measurements.

DAILY Gauge Height and Discharge of Swiftcurrent Creek, at Pollock's Ranche, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft*	*Feet.*	*Sec.-ft.*
1			0.8	1.	1.0	1.75
2			0.8	1.	1.0	1.65
3			0.8	1.	0.9	1.
4			0.8	1.	0.9	0.95
5			0.8	1.	2.0	21.
6			0.8	1.	2.0	21.
7			0.8	1.	1.9	18.
8			0.8	1.	1.9	18.
9			0.8	1.	1.0	1.3
10			0.8	1.	0.9	0.8
11			0.8	1.	0.9	0.8
12			0.8	1.	0.9	0.8
13			0.8	1.	0.9	0.8
14			0.8	1.	0.8	0.4
15			0.8	1.	0.8	0.4
16			0.7	0.55	0.8	0.4
17			0.7	0.55	0.8	0.4
18	1.04	3.07	0.7	0.55	0.8	0.4
19	1.01	2.68	0.8	1.	0.8	0.4
20	1.01	2.68	2.01	23.*	0.8	0.4
21	1.01	2.68	1.9	20.*	0.7	0.15
22	0.9	1.65	1.8	18.*	0.7	0.15
23	0.9	1.65	1.7	15.*	0.9	0.8
24	0.9	1.65	1.0	2.1	0.9	0.8
25	0.8	1.	0.9	1.3	0.9	0.8
26	0.8	1.	1.0	1.95	1.0	1.45
27	0.8	1.	1.0	1.9	1.0	1.45
28	0.8	1.	1.0	1.9	1.0	1.45
29	0.8	1.	1.0	1.85	1.0	1.45
30	0.8	1.	1.0	1.8	0.9	0.8
31	0.8	1.			0.9	0.8

DAILY Gauge Height and Discharge of Swiftcurrent Creek, at Pollock's Ranche, for 1909.—*Concluded.*

Date.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.9	0.8	0.75	0.25	0.75	0.25
2	0.9	0.8	0.75	0.25	0.75	0.25
3	0.9	0.8	0.75	0.25	0.75	0.25
4	0.9	0.8	0.75	0.25	0.75	0.25
5	0.9	0.8	0.75	0.25	0.75	0.25
6	0.9	0.8	0.7	0.15	0.75	0.25
7	0.9	0.8	0.75	0.25	0.75	0.25
8	1.0	1.45	0.75	0.25	0.75	0.25
9	1.0	1.45	0.7	0.15	0.8	0.4
10	0.9	0.8	0.7	0.15	0.8	0.4
11	0.9	0.8	0.7	0.15	0.8	0.4
12	0.9	0.8	0.75	0.25	0.8	0.4
13	0.9	0.8	0.75	0.25	0.8	0.4
14	0.9	0.8	0.85	0.6	0.8	0.4
15	0.9	0.8	0.85	0.6	0.8	0.4
16	0.9	0.8	0.75	0.25	0.8	0.4
17	0.9	0.8	0.75	0.25	0.8	0.4
18	0.9	0.8	0.8	0.4	0.8	0.4
19	0.9	0.8	0.8	0.4	0.8	0.4
20	0.9	0.8	0.85	0.6	0.8	0.4
21	0.9	0.8	0.85	0.6	0.8	0.4
22	0.75	0.25	0.8	0.4	0.8	0.4
23	0.75	0.25	0.8	0.4	0.85	0.6
24	0.75	0.25	0.8	0.4	0.9	0.8
25	0.8	0.4	0.75	0.25	0.9	0.8
26	0.85	0.6	0.75	0.25	0.9	0.8
27	0.75	0.25	0.75	0.25	0.9	0.8
28	0.75	0.25	0.75	0.25	0.9	0.8
29	0.75	0.25	0.75	0.25	0.9	0.8
30	0.75	0.25	0.75	0.25	0.9	0.8
31	0.75	0.25			0.9	0.8

*—Discharges computed.

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of D. Pollock's Ditch in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq.-ft.*	*Sec.-ft.*
May 18	H. R. Carscallen	About ¼ mile below intake.	2.2	1.00	2.00
June 5	do	do	3.5	1.55	1.23
June 25	do	do	4.0	2.33	2.67
July 10	do	do	3.5	1.91	1.88
July 30	do	do			0.00*
August 20	do	do			0.00*
September 24	do	do	2.8	1.39	0.62

*No water in ditch.

Jones Coulee at Read's Ranche.

This station was established September 23, 1909 by H. R. Carscallen. It is located on Section 5, Tp. 8, Range 20, West of the 3rd Meridian, about 300 yards from the surveyed trail to Gull Lake and about forty-two miles south of Gull Lake. It is about two miles and a half northeast of South Fork Post Office and near the mouth of the stream.

The channel is straight for 75 feet above and 50 feet below the station. Both banks are high and not liable to overflow. The banks are free from brush except for a little undergrowth near the station on the left bank. The bed of the stream is composed of soft clay with sand underneath. The current is very sluggish and the water is comparatively deep at the station, giving rise to a small amount of vegetation.

The gauge, which is read each day by W. F. Read, is a rod, graduated to feet and hundredths, attached vertically to a post sunk in the bed of the creek at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) A spike head in the top of the final point stake driven close to the ground on the right bank and marked B. M.; elevation, 8.25 feet above gauge zero. (2) The top of two spikes driven horizontally into the end of a log at the northwest corner of Mr. Reid's stable, the log marked B. M.; elevation, 11.46 feet above gauge zero.

Discharge measurements are made a short distance upstream from the gauge by wading and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I. P. o.o.

Discharge Measurements of Jones' Coulee at Read's Ranche in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq.-ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 8	F. T. Fletcher	3.0	*	0.188		0.80
July 10	do	3.0	*	0.08		0.24
1909.						
September 23	H. R. Carscallen	8.2	2.35	0.37	2.09	0.86

*Weir measurements taken on sec. 8-8-20-3, the section north of the one on which the station is located.

DAILY Gauge Height, in feet, of Jones Coulee, Read's Ranche, for 1909.

	Sept.	Oct.		Sept.	Oct.
1		2.0	16		2.2
2		2.2	17		2.25
3		2.2	18		2.2
4		2.2	19		2.15
5		2.3	20		2.3
6		2.2	21		2.2
7		2.2	22		2.3
8		2.3	23	2.1	2.3
9		2.3	24	2.1	2.3
10		2.3	25	2.1	2.3
11		2.3	26	2.2	2.2
12		2.2	27	2.3	2.3
13		2.3	28	2.2	2.3
14		2.3	29	2.0	2.3
15		2.3	30	2.3	2.3
			31		2.3

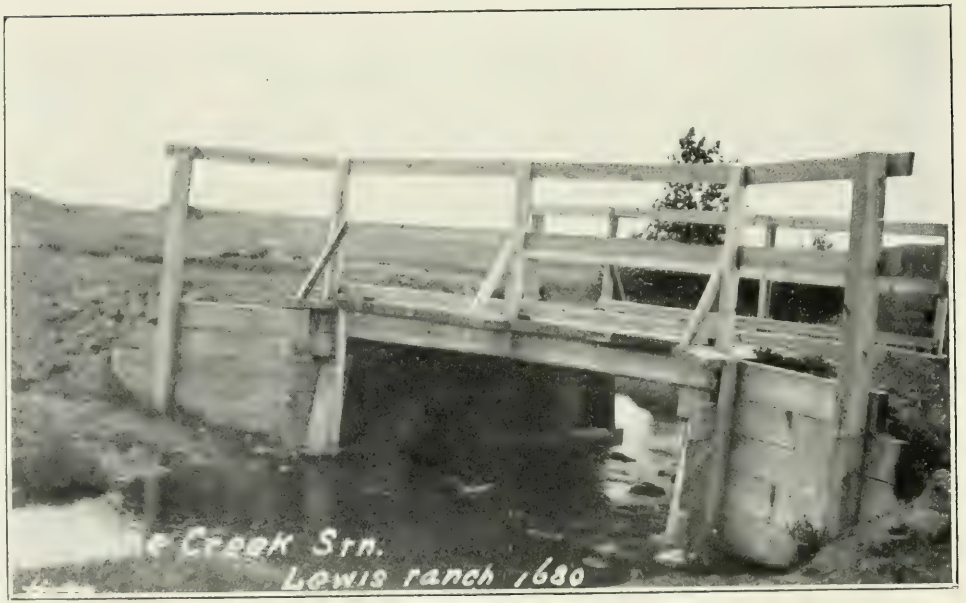
MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Swiftcurrent Creek in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
			Feet.	*Sq ft.*	*Sec.-ft.*
July 9	H. R. Carscallen	Sec. 18–10–19–3 just below forks.	36.5	41.3	47.7
July 9	do	Section 18–10–19–3 just above forks.	11.5	15.7	21.4
September 4	do	Swiftcurrent, Sask	26.0	19.8	14.5
September 22	do	Section 18–10–19–3 just below forks.	26.5	14.6	13.2
September 22	do	Section 18–10–19–3 just above forks.	10.0	4.99	2.03

MISCELLANEOUS Discharge Measurements of McNicol Coulee on Sec. 21–7–21–3, in 1908–9.

Date.	Hydrographer.	Weir dimension.		Discharge.
		Breadth.	Head.	
		Feet.	*Feet.*	*Sec.-ft.*
1908.				
July 4	F. T. Fletcher	1.0	0.08	0.079
1909.				
September 21	H. R. Carscallen	1.25	0.75	0.085



Gauging Station on Bone Creek, near Lewis' Ranche.

Miscellaneous Discharge Measurements of Chimney Coulee, in 1909.

On September 21, 1909, a weir measurement of this stream was made on Sec. 14, Tp. 7, R. 21, west of the 3rd meridian, the estimated discharge being 0.019 sec.-ft.

Bone Creek at Lewis' Ranche.

This station was established July 2, 1908 by F. T. Fletcher. It is located at the highway bridge on Sec. 34, Tp. 8, R. 22, west of the 3rd meridian. It is on the surveyed trail from Skull Creek P. O. to East End P. O. and about fifteen miles south of Skull Creek P. O., by trail. The bridge is a small wooden structure, built in the form of a culvert with a rectangular cross-section.

The channel above the station is straight for 50 feet; the channel below the station curves gradually after emerging from the downstream side of the bridge. The right bank is high and will not overflow; the left bank is comparatively low although no indication of the water overflowing the bank can be found. Both banks are free from brush at the station. The bed of the stream is sandy with some large stones scattered along the cross-section. The current is moderate becoming very swift below the station.

The gauge, which is read daily by C. L. Lewis, is a plain staff, graduated to feet and hundredths, attached vertically to the left abutment on the upstream side of the bridge. The gauge is referred to bench marks as follows: (1) The head of a spike surrounded by a circle of nail heads in the top of the stringer on the left abutment at the upstream side of the bridge, marked B. M. with white paint; elevation, 4.17 feet above the zero of the gauge. (2) The top of the iron pin in the road mound 754 feet north of the bridge on the left bank of the creek; elevations, 5.92 feet above the zero of the gauge.

Discharge measurements are made from the upstream side of the bridge. The initial point for soundings is the inner face of the left abutment. Low-water measurements are made near the station by wading.

Discharge Measurements of Bone Creek, at Lewis' Ranche, in 1908–9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 27	F. T. Fletcher	3.0	*	0.285	.....	1.51
July 2	....do	4.7	1.81	0.83	0.39	1.51
1909.						
April 16	F. T. Fletcher	7.8	4.14	1.52	0.55	6.29
May 15	H. R. Carscallen	9.0	5.95	0.44	0.48	2.62
June 4	....do	5.0	1.82	1.17	0.415	2.13
June 25	....do	9.5	6.25	0.47	0.46	2.92
July 8	....do	9.0	5.57	0.49	0.39	2.72
July 30	....do	9.0	3.87	0.49	0.31	1.90
August 20	....do	8.0	2.21	0.50	0.28	1.10
September 18	....do	8.5	3.41	0.76	0.405	2.59

*Weir measurement.

DAILY Gauge Height and Discharge of Bone Creek at Lewis Ranche, for 1908.

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.35	1.8	0.32	1.6	0.4	2.3	0.35	1.8
2	0.35	1.8	0.33	1.65	0.35	1.8	0.35	1.8
3	0.35	1.8	0.32	1.6	0.35	1.8	0.38	2.1
4	0.32	1.65	0.33	1.65	0.4	2.3	0.37	2.
5	0.35	1.8	0.32	1.6	0.4	2.3	0.38	2.1
6	0.35	1.8	0.35	1.8	0.35	1.8	0.4	2.3
7	0.32	1.6	0.35	1.8	0.35	1.8	0.4	2.3
8	0.33	1.65	0.35	1.8	0.35	1.8	0.4	2.3
9	0.32	1.6	0.4	2.3	0.35	1.8	0.38	2.1
10	0.3	1.45	0.38	2.1	0.35	1.8	0.37	2.
11	0.3	1.45	0.37	2.	0.35	1.8	0.35	1.8
12	0.3	1.45	0.4	2.3	0.35	1.8	0.35	1.8
13	0.3	1.45	0.47	3.5	0.33	1.65	0.35	1.8
14	0.3	1.45	0.48	3.7	0.35	1.8	0.35	1.8
15	0.3	1.45	0.4	2.3	0.35	1.8	0.36	1.9
16	0.33	1.65	0.38	2.1	0.35	1.8	0.37	2.
17	0.4	2.3	0.37	2.	0.35	1.8	0.4	2.3
18	0.4	2.3	0.35	1.8	0.35	1.8	0.4	2.3
19	0.35	1.8	0.35	1.8	0.33	1.65	0.37	2.
20	0.32	1.6	0.35	1.8	0.3	1.45	0.5	4.1
21	0.33	1.65	0.35	1.8	0.3	1.45	0.7	9.4
22	0.32	1.6	0.35	1.8	0.3	1.45	0.8	12.2
23	0.33	1.65	0.35	1.8	0.3	1.45	0.9	15.4
24	0.32	1.6	0.35	1.8	0.35	1.8	2.0	56.
25	0.33	1.65	0.5	4.1	0.35	1.8	1.6	40.3
26	0.32	1.6	0.45	3.1	0.35	1.8	0.7	9.4
27	0.33	1.65	0.4	2.3	0.35	1.8	0.5	4.1
28	0.32	1.6	0.4	2.3	0.37	2.	0.45	3.1
29	0.33	1.65	0.4	2.3	0.38	2.1	0.45	3.1
30	0.32	1.6	0.4	2.3	0.37	2.	0.45	3.1
31	0.33	1.65	0.4	2.3	.....	.....	0.45	3.1

NOTE.—See foot note under gauge height and discharge table of Bone Creek for 1909.

DAILY Gauge Height and Discharge of Bone Creek at Lewis' Ranche, for 1909.

Day.	March.		April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			0.4	2.3	0.5	4.1	0.5	4.1
2			0.45	3.1	0.5	4.1	0.5	4.1
3			0.5	4.1	0.8	12.25	0.5	4.1
4			0.5	4.1	0.7	9.4	0.45	3.1
5			0.5	4.1	0.6	6.7	0.45	3.1
6			0.45	3.1	0.6	6.7	0.5	4.1
7			0.5	4.1	0.6	6.7	0.5	4.1
8			0.5	4.1	0.5	4.1	0.5	4.1
9			0.5	4.1	0.5	4.1	0.5	4.1
10			0.5	4.1	0.6	6.7	0.5	4.1
11			0.45	3.1	0.7	9.4	0.5	4.1
12			0.5	4.1	0.7	9.4	0.5	4.1
13			0.6	6.7	0.6	6.7	0.5	4.1
14			0.5	4.1	0.6	6.7	0.4	2.3
15			0.5	4.1	0.6	6.7	0.4	2.3
16			0.55	5.4	0.6	6.7	0.4	2.3
17			0.5	4.1	0.7	9.4	0.4	2.3
18			0.45	3.1	0.7	9.4	0.4	2.3
19			0.5	4.1	0.6	6.7	0.7	9.4
20			0.5	4.1	0.55	5.4	1.7	44.0
21			0.7	9.4	0.55	5.4	1.6	40.3
22			0.6	6.7	0.55	5.4	0.6	6.7
23			0.8	12.25	0.55	5.4	0.5	4.1
24			0.8	12.25	0.55	5.4	0.5	4.1
25			0.9	15.4	0.5	4.1	0.5	4.1
26	0.5	4.1	0.8	12.25	0.5	4.1	0.5	4.1
27	0.6	6.7	0.8	12.25	0.44	2.95	0.5	4.1
28	0.4	2.3	0.6	6.7	0.5	4.1	0.5	4.1
29	0.6	6.7	0.6	6.7	0.5	4.1	0.5	4.1
30	0.7	9.4	0.5	4.1	0.5	4.1	0.4	2.3
31	0.7	9.4			0.5	4.1		

DAILY Gauge Height and Discharge of Bone Creek at Lewis Ranche, for 1909—*Con.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
2	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
3	0.4	2.3	0.4	2.3	0.3	1.45	0.3	1.45
4	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
5	0.6	6.7	0.3	1.45	0.3	1.45	0.3	1.45
6	0.6	6.7	0.3	1.45	0.3	1.45	0.3	1.45
7	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
8	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
9	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
10	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
11	0.5	4.1	0.3	1.45	0.3	1.45	0.3	1.45
12	0.55	5.4	0.3	1.45	0.3	1.45	0.3	1.45
13	0.5	4.1	0.3	1.45	0.3	1.45	0.3	1.45
14	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
15	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
16	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
17	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
18	0.55	5.4	0.3	1.45	0.4	2.3	0.3	1.45
19	0.4	2.3	0.3	1.45	0.4	2.3	0.3	1.45
20	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
21	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
22	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
23	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
24	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
25	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
26	0.4	2.3	0.3	1.45	0.3	1.45	0.3	1.45
27	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
28	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
29	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
30	0.3	1.45	0.3	1.45	0.3	1.45	0.3	1.45
31	0.3	1.45	0.3	1.45	.....	.....	0.3	1.45

NOTE.—Discharges for gauge heights above 0.55 are obtained by producing rating curve through points of computed discharge.

MONTHLY Discharge of Bone Creek, at Lewis' Ranche, for 1908-9.

[Drainage area, 8 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square. mile.	Depth inches on Drainage area.	Total in acre-feet.
1908.						
July	2.3	1.45	1.67	.209	.241	103
August	4.1	1.6	2.16	.271	.312	133
September	2.3	1.45	1.82	.227	.253	108
October	56	1.8	6.51	.814	.938	400
The period						744
1909.						
March (26–31)	9.4	2.3	6.4	.804	.179	77
April	15.4	2.3	5.9	.742	.828	353
May	12.2	2.9	6.1	.768	.885	378
June	44	2.3	6.5	.809	.903	385
July	6.7	1.45	2.57	.321	.370	158
August	2.3	1.45	1.48	.185	.213	91
September	2.3	1.45	1.51	.188	.210	90
October	1.45	1.45	1.45	.181	.209	89
The period						1,621

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Measurements of Bone Creek, in 1909.

Date.	Hydrographer.	Locality.	Width.	Area of section.	Discharge.
July 9	H. R. Carscallen	Section 18–10–19–3 just above mouth.	13.5	23.5	31.3
September 22	do	do	13.0	12.6	12.1

BRIDGE CREEK, NEAR SKULL CREEK, P. O.

This station was established July 29, 1909, by H. R. Carscallen. It is located at the highway bridge on the surveyed trail running eastward from Maple Creek on sec. 11, Tp. 11, R. 22, west of the 3rd meridian. It is about four miles from Skull Creek P. O., and twenty-seven miles from Maple Creek.

The channel is straight for 100 feet above and 30 feet below the station. Both banks are high and not liable to overflow. The stream is entirely devoid of tree growth. The bed of the creek is composed of clay and may shift somewhat at high stages. There is a small amount of vegetation at the station. The current is sluggish.

The gauge, which is read once each day by James Mann, is a rod, graduated to feet and hundredths, attached vertically to the centre pile on the downstream side of the bridge. The gauge is referred to bench marks as follows: (1.) The head of a spike surrounded by a circle of nail-heads in the top of the stringer at the right or east abutment on the downstream side of the bridge; elevation, 9.83 feet above gauge zero. (2.) The head of a spike in the top of a pointed 6″ wooden post firmly sunk into the ground on the left bank about 60 feet northwest of the gauge, the post blazed and marked B. M.; elevation 6.26 feet above gauge zero.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inner face of the left or west abutment. A centre row of piles, supporting the bridge, divides the stream into two channels. Low-water measurements are made near the station by wading, and at very low stages a weir is used.

Discharge Measurements of Bridge Creek, near Skull Creek P. O., in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq.-ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
July 29	H. R. Carscallen	3.0	*	0.448	2.09	2.90
August 19	do					Nil.
September 17	do					Nil.

*Weir measurement.

Daily Gauge Height and Discharge of Bridge Creek, near Skull Creek P. O., for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	1.5	0.83	*a*		1.2	0.32
2	1.5	0.83	*a*		1.2	0.32
3	1.3	0.48	*a*		0.8	0.03
4	1.2	0.32	*a*		0.5	0.00
5	1.1	0.18	*a*		*a*	
6	1.0	0.10	*a*		*a*	
7	0.9	0.06	*a*		*a*	
8	1.1	0.18	*a*		*a*	
9	1.0	0.10	*a*		*a*	
10	0.9	0.06	*a*		*a*	
11	0.8	0.03	*a*		*a*	
12	0.7	0.01	*a*		*a*	
13	0.7	0.01	*a*		*a*	
14	0.6	0.00	*a*		*a*	
15	0.5	0.00	*a*		*a*	
16	*a*		*a*		*a*	
17	*a*		*a*		*a*	
18	*a*		*a*		*a*	
19	*a*		*a*		*a*	
20	*a*		*a*		*a*	
21	*a*		*a*		*a*	
22	*a*		*a*		*a*	
23	*a*		*a*		*a*	
24	*a*		*a*		*a*	
25	*a*		*a*		1.2	0.32
26	*a*		*a*		1.3	0.48
27	*a*		*a*		1.2	0.32
28	*a*		1.0	0.10	1.2	0.32
29	*a*		1.3	0.48	1.2	0.32
30	*a*		1.2	0.32	1.2	0.32
31	*a*				1.2	0.32

a—Creek dry at station Aug. 16 to Sept. 27 and Oct. 5 to 24, although a small flow in creek above station.

Skull Creek near Skull Creek P. O.

This station was established June 29, 1908, by F. T. Fletcher. It is located on sec. 10, Tp. 11, R. 22, west of the 3rd meridian, at the highway bridge on the surveyed trail running east from Maple Creek. It is about two miles north of Skull Creek P. O., and about twenty-five miles east of Maple Creek, by trail.

The channel is straight for 100 feet above and 150 feet below the station. Both banks are high and not liable to overflow. The banks are clear of brush for about 50 feet above and below the station, and then become densely wooded. The bed of the stream is composed of sand and may shift somewhat at high stages. The current is moderate.

The gauge, which is read once each day by James Mann, is a plain staff, graduated to feet and hundredths, attached vertically to the centre pile on the upstream or south side of the bridge. The gauge is referred to bench marks as follows: (1.) A bolt-head surrounded by a circle of nails in the top of the stringer at the right or east abutment on the upstream side of the bridge; elevation, 11.96 feet above the zero of the gauge. (2.) The top of the iron pin in the road mound about 50 feet southeast of the bridge on the right or east bank; elevation, 14.19 feet above the zero of the gauge.

Discharge measurements are made from the upstream side of the bridge. The initial point for soundings is the inner face of the right abutment of the bridge. There is only one channel at low stages, but owing to the centre row of piles supporting the bridge there are two channels at high stages of the stream. Low-water measurements are made at or near the gauge by wading, and at very low stages a weir is used.

Discharge Measurements of Skull Creek, near Skull Creek P. O., in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq.-ft*	*Ft. per sec.*	*Feet.*	*Sec.-ft*
June 26	F. T. Fletcher	3.0	*	0.19		0.94
June 29	do	3.0	*	0.29	1.10	1.54
July 1	do	3.0	*	0.35	1.145	2.06
1909.						
April 16	F. T. Fletcher	6.5	3.48	1.99	2.55	6.94†
April 27	do	21.7	37.1	1.20	3.23	44.5
April 28	do	11.0	11.2	1.99	2.72	22.3
May 15	H. R. Carscallen	9.5	13.5	0.84	1.785	11.3
June 4	do	6.3	3.20	0.99	0.94	3.19
June 24	do	9.0	9.87	1.23	1.65	12.2
July 7	do	8.3	6.34	1.26	1.235	8.02
July 29	do	8.0	5.74	1.21	1.115	6.95
August 19	do	1.25	*	0.256	0.53	0.52
September 17	do	1.25	*	0.264	0.56	0.54

*Weir measurements.
†Ice conditions.

DAILY Gauge Height, in feet, of Skull Creek, near Skull Creek P. O., for 1908.

Day.	July.	August.	September:	October.	November.
1	1.3	*a*	0.6	0.4	3.6
2	0.9	*a*	0.6	0.6	*c*
3	0.8	*a*	0.5	0.7	*c*
4	0.7	*a*	0.4	0.8	3.7
5	0.9	*a*	0.4	0.9	3.6
6	0.9	*a*	0.4	1.0	3.1
7	0.8	*a*	0.5	0.8	3.1
8	0.7	*a*	0.3	1.1	*c*
9	9.6	*a*	0.8	1.1	*c*
10	0.5	0.7	0.6	1.0	*c*
11	0.3	0.8	0.2	1.0	*c*
12	0.2	0.7	0.2	1.0	*c*
13	0.2	0.7	0.2	1.1	*c*
14	0.2	0.7	0.2	1.1	*c*
15	0.6	0.7	*a*	1.2	*c*
16	0.6	0.7	*a*	1.2	*c*
17	1.0	0.6	*a*	1.2	3.0
18	1.0	0.4	*a*	1.2	3.6
19	0.8	0.2	*a*	1.3	3.2
20	0.7	0.2	*a*	*b*	3.0
21	0.5	0.2	0.7	*b*	3.0
22	0.2	0.2	0.7	*b*	2.7
23	*a*	0.2	0.6	*b*	2.0
24	*a*	0.4	0.5	2.0	1.6
25	*a*	0.3	0.8	2.6	1.3
26	*a*	0.8	0.9	2.9	1.2
27	*a*	0.8	0.9	3.0	*c*
28	*a*	0.6	0.9	3.6	*c*
29	*a*	0.5	0.8	*b*	*c*
30	*a*	0.5	0.7	*b*	*c*
31	*a*	0.8	.....	3.6	*c*

a Creek dry July 23 to August 9 and September 15-20. *b* Blizard, no observations. *c* Creek frozen.

DAILY Gauge Height and Discharge of Skull Creek, near Skull Creek P. O., for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.7	10.5	1.1	4.8	1.7	12.75
2	3.0	*b*	1.7	10.5	1.1	4.8	1.5	10.65
3	3.0	*b*	5.9	323 *c*	1.1	4.8	1.5	10.65
4	3.7	*b*	7.3	566 *c*	1.0	3.85	1.5	10.65
5	3.1	*b*	2.5	18.7	1.0	3.85	1.5	10.65
6	2.7	*b*	2.2	15.25	1.2	5.75	2.8	33.3 *c*
7	*a*	*b*	2.0	13.35	1.2	5.75	1.2	7.5
8	3.0	*b*	2.0	13.35	1.3	6.7	1.2	7.5
9	4.3	*b*	1.6	9.55	1.2	5.75	1.2	7.5
10	4.1	*b*	1.5	8.6	1.1	4.8	1.3	8.55
11	*a*	*b*	2.3	16.3	1.1	4.8	2.6	25.35*c*
12	"	*b*	2.7	22	1.0	3.85	3.5	75.7 *c*
13	*a*	*b*	2.8	24.3	1.0	3.85	2.5	22.85*c*
14	2.5	*b*	2.6	20.15	0.9	2.9	2.0	15.9 *c*
15	2.5	*b*	1.8	11.45	0.9	2.9	1.3	8.55
16	2.5	*b*	2.1	14.3	0.9	2.9	1.1	6.45
17	3.1	*b*	2.7	22	0.9	2.9	1.0	5.4
18	3.3	*b*	2.3	16.3	1.0	3.85	1.7	12.75
19	3.6	*b*	2.1	14.3	1.1	4.8	1.3	8.55
20	5.2	*b*	1.8	11.45	8.2	744 *c*	1.0	5.4
21	4.1	*b*	1.7	10.5	7.3	600 *c*	1.0	5.4
22	3.6	*b*	1.5	8.6	2.7	32 *c*	1.0	5.4
23	3.0	*b*	1.6	9.55	1.9	15	0.9	4.35
24	3.0	*b*	1.5	8.6	1.6	12	0.9	4.35
25	4.2	*b*	1.5	8.6	1.5	10.65	0.8	3.3
26	5.2	*b*	1.4	7.65	1.4	9.6	0.9	4.35
27	3.2	42.75	1.2	5.75	2.0	15.9 *c*	1.1	6.45
28	2.8	24.3	1.0	3.85	2.3	19.35*c*	1.4	9.6
29	2.2	15.25	1.2	5.75	1.6	11.7	1.1	6.45
30	2.0	13.35	1.1	4.8	3.4	69.3 *c*	1.1	6.45
31	.....	.....	1.1	4.8	.....	.....	1.0	5.4

a Creek frozen. *b* Apr. 2 to 26, ice in channel. *c* Discharges computed.

Daily Gauge Height and Discharge of Skull Creek, near Skull Creek, P. O., for 1909.—*Concluded.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.9	4.35	0.5	0.5	0.8	3.3
2	0.9	4.35	0.5	0.5	0.8	3.3
3	0.8	3.3	0.6	1.2	0.8	3.3
4	0.8	3.3	0.6	1.2	0.8	3.3
5	0.8	3.3	0.6	1.2	0.9	4.35
6	0.8	3.3	0.6	1.2	0.9	4.35
7	0.8	3.3	0.5	0.5	0.9	4.35
8	0.9	4.35	0.4	0.25	1.0	5.4
9	0.8	3.3	0.5	0.5	0.9	4.35
10	0.8	3.3	0.5	0.5	0.9	4.35
11	0.8	3.3	0.7	2.25	0.9	4.35
12	0.8	3.3	0.6	1.2	1.0	5.4
13	0.7	2.25	0.6	1.2	1.0	5.4
14	0.7	2.25	0.6	1.2	1.0	5.4
15	0.6	1.2	0.6	1.2	1.0	5.4
16	0.5	0.5	0.6	1.2	1.0	5.4
17	0.5	0.5	0.6	1.2	1.0	5.4
18	0.5	0.5	0.9	4.35	1.0	5.4
19	0.5	0.5	0.8	3.3	1.0	5.4
20	0.5	0.5	0.8	3.3	1.0	5.4
21	0.6	1.2	0.7	2.25	1.0	5.4
22	0.6	1.2	0.8	3.3	1.0	5.4
23	0.6	1.2	0.8	3.3	1.0	5.4
24	0.6	1.2	0.8	3.3	1.0	5.4
25	0.7	2.25	0.8	3.3	1.0	5.4
26	0.7	2.25	0.7	2.25	1.0	5.4
27	0.6	1.2	0.8	3.3	1.0	5.4
28	0.6	1.2	0.8	3.3	1.0	5.4
29	0.6	1.2	0.8	3.3	1.0	5.4
30	0.6	1.2	0.8	3.3	1.0	5.4
31	0.6	1.2	.....	.....	1.0	5.4

Monthly Discharge of Skull Creek, near Skull Creek P. O., for 1909.

[Drainage area, 43 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
April (27-30)	42.7	13.3	23.9	.556	.083	190
May	566	3.85	40.0	.930	1.072	2,459
June	744	2.90	54.1	1.258	1.404	3,219
July	75.7	3.3	11.9	.276	.318	730
August	4.35	0.5	2.14	.050	.058	131
September	4.35	0.25	1.96	.046	.051	117
October	5.4	3.3	4.93	.115	.133	303
The period	.....	.....	.....	.....	.....	7,149

Bear Creek near Unsworth's Ranche.

This station was established June 22, 1908, by F. T. Fletcher. It is located on sec. 18, Tp. 11, R. 23, west of the 3rd meridian at the highway bridge on the surveyed trail running east from Maple Creek. It is about one-half mile south of S. Unsworth's ranche, and fifteen miles east of Maple Creek.

The channel is straight for 100 feet above and below the station. Both banks are high and not liable to overflow. The station is kept clear of underbrush, but both banks are very densely wooded above and below the bridge. The bed of the stream is sandy and is subject to changes at high stages of the creek. The current is moderate, becoming sluggish at very low stages.

The gauge, which is read once each day by Mr. Unsworth, is a rod, graduated to feet and hundredths, attached vertically to the centre pile on the downstream side of the bridge. The gauge is referred to bench marks as follows: (1.) A circle of nail-heads in the top of the stringer at the left abutment on the downstream side of the bridge; elevation, 14.05 feet above the zero of the gauge. (2.) The top of the iron pin in the road mound southeast of the bridge on the left bank; elevation, 18.97 feet above the zero of the gauge.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inner face of the left abutment of the bridge. Low-water measurements are made at a wading section about one-half mile downstream from the gauge. There is only one channel at low stages, but at high stages the centre row of piles supporting the bridge divides the current into two channels.

Discharge Measurements of Bear Creek, near Unsworth's Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
June 22	F. T. Fletcher	8.5	13.7	0.46	1.00	6.42
1909.						
April 15	F. T. Fletcher	10.0	12.0	0.81	3.56	9.78*
April 26	do	26.7	112	1.57	7.585	176
April 27	do	21.8	74.8	1.42	6.05	106
May 14	H. R. Carscallen	11.0	32.0	1.27	3.425	40.7
June 3	do	8.5	20.2	0.70	1.72	14.3
June 24	do	18.5	65.4	1.56	4.965	102
July 7	do	17.5	50.9	1.58	4.365	80.6
July 28	do	8.0	23.4	1.12	2.29	26.3
August 16	do	8.8	4.46	0.94	0.83	4.20
September 16	do	9.0	5.06	0.87	0.84	4.38
November 12	do	10.7	9.56	0.92	1.24	8.76

*Ice conditions.

DAILY Gauge Height and Discharge of Bear Creek, near Unsworth's Ranche, for 1908.

Day.	June.		July.		August.		September.		October.	
	Gauge Height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.3	9.4	0.4	2.3	1.2	8.4	1.2	8.4
2	.....	.....	1.2	8.4	0.4	2.3	1.2	8.4	1.2	8.4
3	.....	.....	1.1	7.4	0.4	2.3	1.2	8.4	1.2	8.4
4	.....	.....	1.0	6.45	0.4	2.3	1.1	7.4	1.3	9.4
5	.....	.....	1.0	6.45	0.4	2.3	1.1	7.4	1.3	9.4
6	.....	.....	1.1	7.4	0.3	1.8	1.0	6.45	1.3	9.4
7	.....	.....	1.1	7.4	0.3	1.8	1.0	6.45	1.4	10.5
7	.....	.....	1.0	6.45	0.3	1.8	0.9	5.55	1.4	10.5
9	.....	.....	1.0	6.45	0.8	4.75	0.9	5.55	1.4	10.5
10	.....	.....	0.9	5.55	1.0	6.45	0.9	5.55	1.4	10.5
11	.....	.....	0.9	5.55	1.1	7.4	0.8	4.75	1.4	10.5
12	.....	.....	0.8	4.75	1.2	8.4	0.8	4.75	1.4	10.5
13	.....	.....	0.7	4.05	1.3	9.4	0.8	4.75	1.4	10.5
14	.....	.....	0.6	3.45	1.2	8.4	0.7	4.05	1.4	10.5
15	.....	.....	0.7	4.05	1.2	8.4	0.7	4.05	1.5	11.6
16	.....	.....	0.7	4.05	1.2	8.4	0.6	3.45	1.5	11.6
17	.....	.....	0.8	4.75	1.2	8.4	0.6	3.45	1.5	11.6
18	.....	.....	1.0	6.45	1.2	8.4	0.6	3.45	1.6	12.7
19	.....	.....	1.1	7.4	1.2	8.4	0.6	3.45	1.6	12.7
20	.....	.....	1.0	6.45	1.2	8.4	0.7	4.05	1.6	12.7
21	.....	.....	1.0	6.45	1.2	8.4	0.7	4.05	1.6	12.7
22	1.0	6.45	0.9	5.55	1.2	8.4	0.7	4.05	2.0	17.8
23	1.0	6.45	0.8	4.75	1.2	8.4	0.7	4.05	2.6	26.65
24	0.9	5.55	0.7	4.05	1.2	8.4	0.7	4.05	2.8	29.8
25	0.9	5.55	0.7	4.05	1.3	9.4	0.8	4.75	2.6	26.65
26	0.9	5.55	0.6	3.45	1.3	9.4	0.8	4.75	2.4	23.6
27	1.0	6.45	0.6	3.45	1.2	8.4	0.8	4.75	2.2	20.6
28	1.0	6.45	0.6	3.45	1.2	8.4	0.8	4.75	2.1	19.2
29	1.0	6.45	0.5	2.85	1.2	8.4	0.9	5.55	2.1	19.2
30	1.1	7.4	0.5	2.85	1.2	8.4	0.9	5.55	2.1	19.2
31	.....	.....	0.4	2.3	1.2	8.4	.....	.....	2.0	17.8

DAILY Gauge Height and Discharge of Bear Creek, near Unsworth's Ranche, for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sect.-ft.*
1	4.7	*a*	3.8	47.9	2.1	19.2	3.7	61.
2	4.8	*a*	4.0	52	2.1	19.2	3.5	55.5
3	4.7	*a*	5.6	90.6	1.8	15	3.0	43.6
4	4.6	*a*	7.1	151	1.7	13.8	3.0	43.6
5	4.3	*a*	8.8	257	1.7	13.8	3.0	43.5
6	4.8	*a*	5.6	90.6	1.8	15	3.6	58
7	4.9	*a*	3.8	47.9	1.8	15	4.4	82
8	5.6	*a*	3.3	38.4	1.9	16.4	4.1	71.5
9	6.1	*a*	3.0	33.1	1.9	16.4	2.9	40.8
10	7.0	*a*	3.4	40.2	1.9	16.4	2.7	36.7
11	4.1	*a*	4.1	54.1	1.8	15	2.6	34.5
12	4.0	*a*	4.2	56.2	1.7	13.8	3.6	57.1
13	3.5	*a*	3.8	47.9	1.6	12.7	4.1	71
14	3.5	*a*	3.4	40.2	1.5	11.6	4.5	83.2
15	3.7	*a*	3.2	36.6	1.5	11.6	3.8	61.7
16	3.8	*a*	3.1	34.9	1.5	11.6	3.2	46.5
17	3.8	*a*	3.6	44	1.7	13.8	3.0	42
18	4.8	*a*	4.0	52	1.7	13.8	2.9	39.6
19	5.0	*a*	4.2	56.2	1.8	15	2.8	37.2
20	5.1	*a*	3.9	49.9	4.3	58.3	2.5	31.2
21	6.0	*a*	3.6	44	14	741	2.3	27.5
22	6.3	*a*	3.1	34.8	11.7	496	2.3	27
23	4.8	69.3	3.3	38.4	10.2	430	2.2	25
24	3.8	47.9	4.2	56.2	4.8	97	2.0	21.2
25	5.6	90.6	4.1	54.1	4.2	76.4	1.8	17.7
26	7.6	1.78	3.2	36.6	4.0	70.5	1.6	14.2
27	6.2	112	2.7	28.2	4.1	73.1	1.4	11.1
28	4.1	54.1	2.4	23.6	4.2	75.9	2.3	26.5
29	3.0	33.1	2.3	22.1	4.3	79	2.2	24.5
30	2.8	29.8	2.3	22.1	4.1	72.8	2.0	20.9
31	.....	.....	2.2	20.6	.....	.....	1.7	15.7

a—Ice in channel April 1st to 22nd.

NOTE.—Discharges for all gauge heights above 8.00 feet are computed.

DAILY Gauge Height and Discharge of Bear Creek, near Unsworth's Ranche, for 1909.—*Concluded.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft*
1	1.6	14.1	0.7	3.1	1.1	7.1
2	1.5	12.5	0.7	3.1	1.1	7.1
3	1.5	12.5	0.7	3.1	1.1	7.1
4	1.4	11	0.7	3.1	1.1	7.1
5	1.4	11	0.7	3.1	1.2	8.3
6	1.3	9.6	0.7	3.1	1.2	8.3
7	1.3	9.6	0.7	3.1	1.2	8.3
8	1.2	8.3	0.7	3.1	1.3	9.6
9	1.2	8.3	0.7	3.1	1.3	9.6
10	1.2	8.3	0.7	3.1	1.3	9.6
11	1.1	7.1	0.7	3.1	1.3	9.6
12	1.1	7.1	0.9	5	1.3	9.6
13	1.1	7.1	1.0	6	1.3	9.6
14	1.1	7.1	0.9	5	1.3	9.6
15	1.0	6	0.9	5	1.4	11
16	0.9	5	0.8	4	1.4	11
17	0.8	4	0.8	4	1.4	11
18	0.8	4	0.8	4	1.4	11
19	0.8	4	0.9	5	1.4	11
20	0.7	3.1	1.1	7.1	1.4	11
21	0.7	3.1	1.2	8.3	1.4	11
22	0.7	3.1	1.3	9.6	1.4	11
23	0.7	3.1	1.2	8.3	1.4	11
24	0.6	2.3	1.2	8.3	1.4	11
25	0.6	2.3	1.1	7.1	1.5	12.5
26	0.6	2.3	1.1	7.1	1.5	12.5
27	0.6	2.3	1.0	6	1.5	12.5
28	0.6	2.3	1.0	6	1.5	12.5
29	0.7	3.1	1.0	6	1.5	12.5
30	0.7	3.1	1.0	6	1.5	12.5
31	0.7	3.1			1.5	12.5

MONTHLY Discharge of Bear Creek, near Unsworth's Ranche, for 1908-9.

[Drainage area, 95 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on Drainage. area.	Total in acre-feet.
1908.						
June (22–30)	7.4	5.55	6.26	.066	.022	112
July	9.4	2.3	5.34	.056	.065	328
August	9.4	1.8	6.66	.070	.081	409
September	8.4	3.45	5.2	.055	.061	309
October	29.8	8.4	14.3	.151	.174	880
The period						2,038
1909.						
April (23–30)	178	29.8	76.8	.809	.241	1,219
May	257	20.6	54.9	.578	.666	3,374
June	741	11.6	85.0	.894	.997	5,056
July	83.2	11.1	41.0	.432	.498	2,522
August	14.1	2.3	6.1	.064	.074	376
September	9.6	3.1	5.1	.053	.059	301
October	12.5	7.1	10.3	.108	.124	631
The period						13,479

EAST BRANCH OF BEAR CREEK AT JOHNSON'S RANCHE.

This station was established August 18, 1909, by H. R. Carscallen. It is located on sec. 21, Tp. 10, R. 23, west of the 3rd meridian, about a mile and a half southeast of Skibereen P.O.

The channel is straight for 50 feet above and 40 feet below the station. Both banks are high and not liable to overflow, unless in cases of extreme floods. The banks are free from brush at the station, but are wooded above and below. The bed of the stream is composed of coarse gravel and stones. The large stones in the bed of the stream make accurate soundings at the station rather difficult to obtain. The current is moderate.

The gauge, which is read once each day by Ralph Johnson, is a plain staff, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the stream at the right bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) A spike-head in the top of a pointed black-birch stump about 40 feet southeast of the gauge on the right bank, the stump blazed and marked B. M.; elevation, 8.99 feet above the zero of the gauge. (2.) A spike head in the top of a pointed black-birch stump, about 30 feet northeast of the gauge on the right bank, the stump blazed and marked B. M.; elevation, 6.89 feet above the zero of the gauge.

Discharge measurements are made at or near the gauge by wading. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. o.o.

DISCHARGE Measurements of East Branch of Bear Creek, at Johnson's Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq.-ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft*
August 18	H. R. Carscallen	13.0	4.88	0.39	1.15	1.92
September 15	....do	8.4	4.48	0.48	1.19	2.15
November 11	....do	9.0	4.83	0.62	1.28	2.98

DAILY Gauge Height and Discharge of East Branch of Bear Creek, at Johnson's Ranche, for 1909.

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.1	1.5	1.2	2.25
2	.....	.....	1.1	1.5	1.2	2.25
3	.....	.....	1.1	1.5	1.2	2.25
4	.....	.....	1.1	1.5	1.2	2.25
5	.....	.....	1.1	1.5	1.2	2.25
6	.....	.....	1.1	1.5	1.2	2.25
7	.....	.....	1.1	1.5	1.2	2.25
8	.....	.....	1.1	1.5	1.2	2.25
9	.....	.....	1.1	1.5	1.2	2.25
10	.....	.....	1.1	1.5	1.2	2.25
11	.....	.....	1.2	2.25	1.2	2.25
12	.....	.....	1.3	3.15	1.3	3.15
13	.....	.....	1.2	2.25	1.2	2.25
14	.....	.....	1.2	2.25	1.2	2.25
15	.....	.....	1.2	2.25	1.3	3.15
16	.....	.....	1.2	2.25	1.2	2.25
17	.....	.....	1.1	1.5	1.3	3.15
18	1.1	1.5	1.2	2.25	1.3	3.15
19	1.2	2.25	1.2	2.25	1.3	3.15
20	1.1	1.5	1.2	2.25	1.3	3.15
21	1.1	1.5	1.2	2.25	1.3	3.15
22	1.1	1.5	1.2	2.25	1.3	3.15
23	1.1	1.5	1.2	2.25	1.3	3.15
24	1.2	2.25	1.2	2.25	1.3	3.15
25	1.2	2.25	1.2	2.25	1.3	3.15
26	1.2	2.25	1.2	2.25	1.3	3.15
27	1.1	1.5	1.2	2.25	1.3	3.15
28	1.1	1.5	1.2	2.25	1.3	3.15
29	1.1	1.5	1.2	2.25	1.3	3.15
30	1.1	1.5	1.2	2.25	1.3	3.15
31	1.1	1.5	.....	.....	1.3	3.15

MONTHLY Discharge of East Branch of Bear Creek, at Johnson's Ranche, for 1909.

[Drainage area, 27 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
August (18-31)	2.25	1.5	1.71	.063	.033	48
September	3.15	1.5	2.00	.074	.082	119
October	3.15	2.25	2.74	.102	.117	168
The period	.....	.....	.....	.....	.....	335

DISCHARGE Measurements of West Branch of Bear Creek, at Bertram's Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*F. per Sec.*	*Feet.*	*Sec.-ft.*
June 19	F. T. Fletcher	9.0	3.41	2.09	.....	7.12*
October 27	....do	11.0	5.68	1.24	.....	6.93*
1909.						
September 16	H. R. Carscallen	11.5	5.18	0.58	1.385	3.00
November 11	....do	12.0	6.34	0.93	1.56	5.92

*Measurements made on sec. 29, tp. 10, range 23, west of the 3rd meridian, the section south of that on which the gauge is located.

WEST BRANCH OF BEAR CREEK AT BERTRAM'S RANCHE.

This station was established September 16, 1909, by H. R. Carscallen. It is located on sec. 32, Tp. 10, R. 23, west of the 3rd meridian, about a mile and a half north of Skibereen P. O. The station is about three hundred yards above the junction of this branch with the East branch of Bear Creek.

The channel is straight for 25 feet above and 15 feet below the station. Both banks are comparatively high and will overflow only in cases of extreme floods. The banks are free from brush at the station, but are heavily wooded immediately above and twenty feet below. The bed of the creek is composed of sand and coarse gravel. The current is moderate at the station, but becomes very swift twenty feet downstream.

The gauge, which is read once each day by Charles Bertram, is a plain staff, graduated to feet and hundredths, attached vertically to a post sunk in the bed of the stream at the left bank and firmly stayed to the bank. The gauge is referred to bench marks as follows: (1.) A spike-head in the top of the initial point stake on the left bank, marked B. M.; elevation, 8.00 above the zero of the gauge. (2.) A spike-head in the top of a pointed poplar stump just below the bank on the left side of the stream, and about 50 feet downstream from the gauge, the stump blazed and marked B. M.; elevation, 8.41 feet above the zero of the gauge.

Discharge measurements are made at, or a short distance below, the gauge by wading. High-water measurements may be made at the government bridge, situated about three-quarters of a mile upstream. The initial point for soundings at the station is a square stake driven close to the ground on the left bank and marked I.P. o.o.

DAILY Gauge Height and Discharge of West Branch of Bear Creek, at Bertram's Ranche, for 1909.

Day.	September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			1.4	3.2
2			1.4	3.2
3			1.5	4.8
4			1.5	4.8
5			1.5	4.8
6			1.5	4.8
7			1.7	9
8			1.7	9
9			1.6	6.7
10			1.6	6.7
11			1.7	9
12			1.7	9
13			1.7	9
14			1.7	9
15			1.7	9
16	1.4	3.2	1.7	9
17	1.4	3.2	1.6	6.7
18	1.7	9	1.5	4.8
19	1.6	6.7	1.5	4.8
20	1.6	6.7	1.5	4.8
21	1.6	6.7	1.5	4.8
22	1.6	6.7	1.5	4.8
23	1.5	4.8	1.5	4.8
24	1.5	4.8	1.6	6.7
25	1.5	4.8	1.6	6.7
26	1.5	4.8	1.6	6.7
27	1.4	3.2	1.6	6.7
28	1.4	3.2	1.6	6.7
29	1.4	3.2	1.6	6.7
30	1.4	3.2	1.6	6.7
31			1.6	6.7

MONTHLY Discharge of West Branch of Bear Creek, at Bertram's Ranche, for 1909.

[Drainage area, 44.5 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth in inches on drainage area.	Total in acre-feet.
September (16-30)	9	3.2	4.95	.111	.062	147
October	9	3.2	6.45	.145	.167	397
The period						544

Miscellaneous Measurements.

Miscellaneous Discharge Measurements of Glennie Creek, in 1908-9.

Date.	Hydrographer.	Locality.	Weir dimensions.		Discharge.
			Breadth.	Head.	
1908.			*Feet.*	*Feet.*	*Sec.-ft.*
June 19	F. T. Fletcher	Sec. 25-10-24-3	3.0	0.16	0.61
1909.					
August 18	H. R. Carscallen	Sec. 30-10-23-3, just above dam.	1.25	0.059	0.06
September 15	....do	.....do	1.25	0.107	0.14

Miscellaneous Discharge Measurements of a spring creek in sec. 8, Tp. 11, R. 23, west of the 3rd meridian, in 1909.

Date.	Hydrographer.	Locality.	Weir dimensions.		Discharge.
			Breadth.	Head.	
			Feet.	*Feet.*	*Sec.-ft.*
August 17	H. R. Carscallen	Sec. 8-11-23-3	1.25	0.23	0.44
September 16	....do	.....do	1.25	0.24	0.47

Piapot Creek at Cumberland's Ranche.

This station was established June 17, 1908, by F. T. Fletcher. It was located on sec. 17, Tp. 11, R. 24, west of the 3rd meridian, at the highway bridge on the surveyed trail running east of Maple Creek and about nine miles from Maple Creek. This station, on account of the difficulty of obtaining an observer, was abandoned May 13, 1909, and re-established by H. R. Carscallen at a wading section near A. Cumberland's house. It is located about a mile north of the old station on sec. 18, Tp. 11, R. 24, west of the 3rd meridian.

The channel is straight for 50 feet above and 100 feet below the station. The right bank is high and not liable to overflow; the left bank is comparatively low and will overflow at flood stages of the stream. The bed of the stream is composed of sand and may shift during high stages. The current is sluggish.

The gauge, which is read once each day by Mr. Cumberland, is a rod, graduated to feet and hundredths, attached vertically to a post sunk in the bed of the stream at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) The top of two spikes driven horizontally into the end of a log at the southwest corner of Mr. Cumberland's old house; elevation, 12.72 feet above the zero of the gauge. (2.) A spike-head surrounded by a circle of nail-heads in the top of a log at the northwest corner of the out-building south of Mr. Cumberland's house; elevation, 11.70 feet above the zero of the gauge.

Discharge measurements are made at or near the gauge by wading. High-water measurements are made at the first established station, from the downstream side of the bridge. The initial point is the inner face of the left abutment of the bridge. Owing to a centre row of piles there are two channels at high water.

DISCHARGE Measurements of Piapot Creek, at Cumberland's Ranche, in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
October 18	F. T. Fletcher	4.5	0.99	0.93	0.54	0.93
1909.						
April 15	F. T. Fletcher	9.6	8.43	1.05	.....	8.81*
April 26	....do	8.3	12.0	1.85	1.37	22.2
May 5	....do	8.0	18.2	2.56	2.04	46.5
May 11	H. R. Carscallen	6.9	10.9	2.39	1.445	26.2
May 13	....do	12.0	12.4	1.26	1.805	15.6
June 3	....do	9.5	5.06	0.90	1.16	4.56
June 21	....do	37.7	172	2.81	6.625	464
June 23	....do	13.0	27.7	1.87	2.94	52
June 24	....do	12.8	23.3	1.75	2.615	40.8
July 6	....do	11.5	23.2	1.73	2.54	40.1
July 28	....do	13.0	14.4	0.79	1.69	11.5
August 14	....do	12.7	7.36	0.36	1.15	2.69
September 14	....do	9.7	7.68	0.38	1.135	2.96
November 9	....do	7.7	4.42	0.73	1.15	3.22

*Ice conditions.

NOTE.—Gauge heights previous to and including that for the measurement made on May 11, 1909, refer to the gauge on the traffic bridge; gauge heights after May 11, 1909, refer to the gauge at Cumberland's Ranche.

DAILY Gauge Height, in feet, of Piapot Creek, near Cumberland's Ranche, for 1908.

Day.	July.	August.	September:	October.
1	.....	*	0.5	0.5
2	.....	*	0.5	0.5
3	.....	*	0.5	0.5
4	0.5	*	0.5	0.5
5	0.5	*	0.5	0.5
6	0.5	*	0.5	0.5
7	0.5	*	0.5	0.5
8	0.6	0.6	0.5	0.5
9	0.5	0.5	0.5	0.5
10	0.5	0.4	0.5	0.5
11	0.5	0.4	0.5	0.5
12	0.5	0.6	0.5	0.5
13	0.6	0.5	0.5	0.5
14	0.6	0.5	0.5	0.5
15	0.6	0.5	0.5	0.6
16	0.6	0.5	0.5	0.6
17	0.8	0.5	0.5	0.6
18	0.6	0.5	0.5	0.5
19	0.5	0.4	0.6	0.6
20	0.5	0.4	0.5	†
21	0.5	0.5	0.5	†
22	0.5	0.5	0.5	†
23	0.4	1.3	0.5	†
24	0.3	0.7	0.5	†
25	0.3	0.7	0.5	†
26	0.3	0.6	0.5	†
27	0.3	0.5	0.5	1.3
28	0.3	0.5	0.5	†
29	0.3	0.5	0.5	†
30	*	0.5	0.5	†
31	*	0.5	.....	†

*Creek dry July 30 to August 7. †Creek frozen October 20 to 26 and after October 27.

Gauging Station on Piapot Creek, near Cumberland's Ranche.

DAILY Gauge Height and Discharge of Piapot Creek, at Cumberland's Ranche, for 1909.

Day.	May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	0.6*	4.9	1.2	3.6	2.0	20.1
2	0.6*	4.9	1.2	3.6	1.6	9.9
3	1.4*	23.3	1.15	3.15	1.3	4.8
4	2.1*	48.8	1.0	2	1.5	8
5	2.1*	48.8	0.85	1.35	2.35	31.9
6	1.7*	33.8	1.0	2	2.5	37.4
7	1.0*	11.7	1.15	3.15	1.9	17.2
8	0.8*	7.7	1.2	3.6	1.6	9.9
9	0.8*	7.7	1.3	4.8	1.6	9.9
10	1.1*	14.1	1.2	3.6	1.6	9.9
11	1.4*	23.3	1.2	3.6	1.8	14.6
12	2.1	23.3	1.2	3.6	3.1	63.8
13	1.7	12.1	1.1	2.7	2.7	44.9
14	1.5	8	1.1	2.7	2.2	26.5
15	1.45	7.15	1.0	2	1.9	17.2
16	1.45	7.15	1.0	2	1.8	14.6
17	2.0	20.1	1.2	3.6	2.0	20.1
18	2.1	23.3	1.1	2.7	2.2	26.5
19	2.0	20.1	1.2	3.6	1.7	12.1
20	1.6	9.9	4.85	209	1.6	9.9
21	1.6	9.9	7.15	552†	1.6	9.9
22	1.7	12.1	4.3	151	1.4	6.3
23	3.05	61.2	2.9	53.6	1.4	6.3
24	2.0	20.1	2.4	33.7	1.4	6.3
25	1.7	12.1	2.4	33.7	1.4	6.3
26	1.55	8.9	1.8	14.6	1.6	9.9
27	1.5	8	1.9	17.2	1.6	9.9
28	1.45	7.15	2.1	23.3	2.3	30
29	1.3	4.8	1.8	14.6	2.0	20.1
30	1.2	3.6	1.9	17.2	1.5	8
31	1.25	4.2	.....	.....	1.4	6.3

*Gauge height observations made at bridge on Sec. 17-11-24-3, from May 1 to 11.
†Discharge computed.

DAILY Gauge Height and Discharge of Piapot Creek, at Cumberland's Ranche, for 1909. —*Concluded.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.ft.*	*Feet.*	*Sec.-ft.*
1	1.5	8	1.1	2.7	1.1	2.7
2	1.4	6.3	1.1	2.7	1.1	2.7
3	1.4	6.3	1.1	2.7	1.1	2.7
4	1.3	4.8	1.1	2.7	1.1	2.7
5	1.3	4.8	1.1	2.7	1.1	2.7
6	1.3	4.8	1.1	2.7	1.1	2.7
7	1.3	4.8	1.1	2.7	1.1	2.7
8	1.2	3.6	1.1	2.7	1.1	2.7
9	1.2	3.6	1.0	2	1.1	2.7
10	1.2	3.6	1 1	2.7	1.1	2.7
11	1.2	3.6	1.2	3.6	1.1	2.7
12	1.2	3.6	1.1	2.7	1.1	2.7
13	1.1	2.7	1.1	2.7	1.1	2.7
14	1.1	2.7	1.1	2.7	1.1	2.7
15	1.1	2.7	1.1	2.7	1.1	2.7
16	1.1	2.7	1.1	2.7	1.1	2.7
17	1.1	2.7	1.1	2.7	1.1	2.7
18	1.1	2.7	1.1	2.7	1.1	2.7
19	1.1	2.7	1.1	2.7	1.1	2.7
20	1.1	2.7	1.1	2.7	1.1	2.7
21	1.1	2.7	1.1	2.7	1.1	2.7
22	1.1	2.7	1.1	2.7	1.1	2.7
23	1.1	2.7	1.1	2.7	1.1	2.7
24	1.1	2.7	1.1	2.7	1.1	2.7
25	1.1	2.7	1.1	2.7	1.1	2.7
26	1.1	2.7	1.1	2.7	1.1	2.7
27	1.1	2.7	1.1	2.7	1.1	2.7
28	1.1	2.7	1.1	2.7	1.1	2.7
29	1.1	2.7	1.1	2 7	1.1	2.7
30	1.1	2.7	1.1	2.7	1.1	2.7
31	1.1	2.7	.....	.....	1.1	2.7

Monthly Discharge of Piapot Creek, at Cumberland's Ranche, for 1909.

[Drainage area, 50 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth-in inches on drainage area.	Total in acre-feet.
May	48.8	3.6	16.5	.330	.380	1,016
June	552	1.35	39.2	.785	.876	2,335
July	63.8	4.8	17.0	.341	.393	1,048
August	8	2.7	3.52	.070	.081	216
September	3.6	2	2.71	.054	.060	161
October	2.7	2.7	2.7	.054	.062	166
The period						4,942

Hay Creek at Fauquier's Ranche.

This station was established April 22, 1909, by F. T. Fletcher. It is located on sec. 30, Tp. 10, R. 25, west of the 3rd meridian, about seven miles southeast of Maple Creek.

The channel is straight for 100 feet above and 200 feet below the station. Both banks are high and not liable to overflow. The bed of the stream is composed of sand and coarse gravel and may shift at high stages. The current is sluggish.

The gauge, which is read daily by H. Fauquier, is a plain staff, graduated to feet and hundredths, attached to a vertical post sunk in the bed of the stream at the left bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1.) A spike-head in the top of the initial point stake on the left bank, marked B. M.; elevation, 6.62 feet above the zero of the gauge. (2.) A "broad arrow" marked with red paint on a large rock in the foundation of a frame out-building close to the gauge; elevation, 9.34 feet above the zero of the gauge.

Discharge measurements are made near the regular station by wading, and at very low stages a weir is used. The initial point for soundings is a square stake driven close to the ground on the left bank and marked I.P. o.o. High-water measurements are not obtainable owing to the absence of any structure from which to gauge the stream at high stages. The gauge is situated below the intake of Mr. Fauquier's irrigation ditch, and also below the intake of the Maple Creek Waterworks Reservoir. Hence, records of flow obtained at the gauge do not include this diverted water, and do not represent the total discharge of the stream. The flow of springs below the Maple Creek Waterworks intake, together with drainage, and the overflow from the Maple Creek Waterworks Reservoir give a continuous flow in the creek-bed above the station. This flow, which depends very largely upon the overflow from the Reservoir, varies greatly, depending upon the consumption of water by the town of Maple Creek and by the C. P. Railway. The disappearance of this water before reaching the gauge is explained, in part, by the fact that Mr. Fauquier diverts water into his irrigation ditch. The remainder of the water must seep through the gravel of the creek-bed between the intake of the ditch and the gauge. The fact that springs break out a short distance below the gauge and give a continuous flow (so far as is known) seems to bear out the seepage theory.

Discharge Measurements of Hay Creek, at Fauquier's Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
March 31	P. M. Sauder	5.0	4.05	1.11	.....	4.49
April 22	F. T. Fletcher	6.0	4.58	0.56	.....	2.58
April 24	do	5.5	4.14	0.78	1.295	3.22
May 5	do	6.5	6.72	1.35	1.87	9.08
May 11	H. R. Carscallen	7.2	6.89	1.21	1.84	8.34
May 31	do	6.2	2.22	0.26	1.025	0.57
June 23	do	8.1	7.67	2.05	1.775	15.7
July 6	do	7.0	4.78	0.70	1.12	3.34
July 27	do	1.25	*	0.12	0.74	0.17
August 13	do	.....	.....	.....	0.15	Nil.†
August 14	do	.....	.....	.....	0.03	Nil.†
September 13	do	.....	.....	.....	.....	Nil.†
October 1	do	.....	.....	.....	.....	Nil.†
November 8	do	.....	.....	.....	.....	Nil.†

*Weir measurement.
†No flow in creek at station. There is a small discharge above but it never reaches the gauge.

Daily Gauge Height and Discharge of Hay Creek, at Fauquier's Ranche, for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	1.7	6.5	1.0	0.5	0.9	1.15
2	.....	.....	1.6	5.2	0.9	0.2	0.8	0.5
3	.....	.....	2.0	11.1	0.9	0.2	0.8	0.5
4	.....	.....	2.1	12.9	0.7	0.05	0.8	0.5
5	.....	.....	1.9	9.45	0.65	0.00	0.9	1.15
6	.....	.....	1.7	6.5	*	0.00	1.0	2
7	.....	.....	1.7	6.5	*	0.00	0.9	1.15
8	.....	.....	1.6	5.2	0.8	0.1	0.8	0.5
9	.....	.....	1.6	5.2	0.9	0.2	0.8	0.5
10	.....	.....	1.7	6.5	0.9	0.2	0.8	0.5
11	.....	.....	1.9	9.45	0.9	0.2	0.8	0.5
12	.....	.....	1.8	7.9	0.8	0.1	1.5	9.6
13	.....	.....	1.8	7.9	0.9	0.2	1.2	4.4
14	.....	.....	1.7	6.5	0.8	0.1	0.9	1.15
15	.....	.....	1.6	5.2	0.7	0.05	0.8	0.5
16	.....	.....	1.6	5.2	*	.....	0.8	0.5
17	.....	.....	2.0	11.1	*	.....	0.7	0.15
18	.....	.....	1.9	9.45	*	.....	0.8	0.5
19	.....	.....	1.9	9.45	0.8	0.1	0.8	0.5
20	.....	.....	1.6	5.2	4.7	†	0.7	0.15
21	.....	.....	1.6	5.2	4.1	†	0.7	0.15
22	.....	.....	1.6	5.2	2.4	†	0.7	0.15
23	.....	.....	2.4	19.2	1.7	13.9	0.7	0.15
24	.....	.....	2.0	11.1	1.4	7.65	0.7	0.15
25	1.8	7.9	1.8	7.9	1.3	5.95	0.7	0.15
26	1.9	9.45	1.6	5.2	1.1	3.1	0.7	0.15
27	1.7	6.5	1.7	6.5	1.0	2	0.7	0.15
28	1.7	6.5	1.6	5.2	1.1	3.1	0.9	1.15
29	1.4	3	1.2	1.4	1.1	3.1	0.7	0.15
30	1.0	0.5	1.1	0.9	1.0	2	0.7	0.15
31	.....	.....	1.1	0.9	.....	.....	0.7	0.15

DAILY Gauge Height and Discharge of Hay Creek, at Fauquier's Ranche, for 1909.—*Con.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*				
1	0.6	0.0	*		*	
2	0.6	0.0	*		*	
3	0.6	0.0	*		*	
4	0.6	0.0	*		*	
5	0.6	0.0	*		*	
6	0.6	0.0	*		*	
7	0.6	0.0	*		*	
8	0.6	0.0	*		*	
9	0.6	0.0	*		*	
10	*		*		*	
11	*		*		*	
12	*		*		*	
13	*		*		*	
14	*		*		*	
15	*		*		*	
16	*		*		*	
17	*		*		*	
18	*		*		*	
19	*		*		*	
20	*		*		*	
21	*		*		*	
22	*		*		*	
23	*		*		*	
24	*		*		*	
25	*		*		*	
26	*		*		*	
27	*		*		*	
28	*		*		*	
29	*		*		*	
30	*		*		*	
31	*				*	

*Creek dry at station June 6, 7, 16, 17 and 18, and August 10—October 31.

†Data insufficient for computation of discharges.

NOTE.—Discharges do not include water used by Maple Creek Waterworks or that used by H. Fauquier for irrigation purposes.

MISCELLANEOUS MEASUREMENTS.

MISCELLANEOUS Discharge Measurements of Hay Creek, in 1909.

Date.	Hydrographer.	Locality.	Weir dimensions.		Discharge.
			Breadth.	Head.	
			Feet.	*Feet.*	*Sec.-ft.*
September 13	H. R. Carscallen	Road allowance between Townships 10 and 11-25-3	1.25	0.105	0.14
September 13	do	S.E. ¼ of section 5-11-25-3.	1.25	*0.125	0.18

*Measurement made below the point where the waste water from Mr. Peecock's hydraulic ram enters the creek.

Maple Creek near Maple Creek, Sask.

This station was established May 9, 1908, by R. J. Burley. It is located at the highway bridge just north of the C. P. Railway tracks in the town of Maple Creek.

The channel is straight for 200 feet above and 100 feet below the station. Both banks are comparatively low and will overflow at high-water stages of the stream. The bed of the stream is composed of sand and may shift during flood stages. The current is moderate at high and sluggish at low stages of the stream. The bridge is not at right angles to the flow and measurements made at the bridge must be corrected.

The gauge, which is read daily by C. A. Peterson, is a plain staff, graduated to feet and hundredths, attached vertically to a pile on the upstream side of the bridge. The gauge is referred to bench marks as follows: (1.) A spike-head in the top of a small pile on the right bank at the upstream side of the bridge; elevation, 8.04 feet above the zero of the gauge. (2.) Nail-heads in the top of the stringer at the right abutment on the upstream side of the bridge; elevation, 8.14 feet above the zero of the gauge. (3.) An "arrow head" painted in black on the top of a long pile in the bed of the creek near the left bank and on the upstream side of the bridge; elevation, 8.64 feet above the zero of the gauge.

Discharge measurements are made from the downstream side of the bridge. The initial point for sounding is the inner face of the right or south abutment of the bridge. Low-water measurements are made at a point about 50 feet upstream from the gauge by wading, and at very low stages a weir is used. The light, sandy soil of the banks gives rise to a great amount of erosion during flood stages, and this fact, coupled with that of the low banks of the stream, makes this station a rather unsatisfactory one for gauging purposes. During the latter part of the season of 1909 it was noticed that the creek was perfectly dry three-quarters of a mile upstream from the gauge, while at the station the flow, although very small, never ceased entirely.

Discharge Measurements of Maple Creek, near Maple Creek, Sask., in 1908-9.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
1908.		*Feet.*	*Sq. ft.*	*Ft per sec.*	*Feet*	*Sec. ft.*
May 9	R. J. Burley				0.45	Nil.
May 28	F. T. Fletcher				*0.53	0.05
1909.						
March 29	P. M. Sauder	8.0	9.28	0.88	2.58	8.19†
April 3	do	32.7	26.9	1.22	2.80	32.8
April 8	F. T. Fletcher	17.5	18.9	0.60	1.56	11.4
April 9	do	10.5	7.23	1.37	1.30	9.92
April 14	do	9.5	4.99	1.25	1.20	6.23
April 21	do	33.0	52.8	1.08	2.65	57.3
May 3	do	34.0	77.2	1.53	3.55	119
May 4	do	34.0	99.7	1.62	4.05	162
May 10	H. R. Carscallen	14.0	12.5	1.25	1.62	15.6
May 31	do	10.0	8.42	0.89	1.235	7.51
June 22	do	47.8	244	1.47	5.45	347
July 3	do	23.5	18.9	0.75	1.83	14.2
July 27	do	1.25	*	0.30	1.29	0.66
August 12	do	1.25	*	0.06	0.93	0.07
September 11	do	1.25	*	0.025	0.59	0.02
November 8	do	1.25	*	0.022	0.84	0.01

*Weir measurements. †Ice conditions.

DAILY Gauge Height, in feet, of Maple Creek, near Maple Creek, Sask., for 1908.

Day.	May.	June.	Julv.	August.	September	October.
1	.....	0.45	0.5	*	*	*
2	.....	0.45	0.45	*	*	*
3	.....	0.45	0.45	*	*	*
4	.....	0.4	0.4	*	*	*
5	.....	0.45	0.5	*	*	*
6	.....	0.5	0.5	*	*	*
7	.....	0.5	0.45	*	*	*
8	.....	0.5	0.4	0.1	*	*
9	.....	0.5	0.3	*	*	*
10	.....	0.45	0.2	*	*	*
11	.....	0.5	*	*	*	*
12	.....	0.55	*	0.1	*	*
13	0.45	0.55	*	*	*	*
14	0.5	0.55	*	*	*	*
15	0.5	0.5	*	*	*	*
16	0.75	0.5	0.45	*	*	*
17	0.65	0.5	0.45	*	*	*
18	0.5	0.45	0.3	*	*	*
19	0.5	0.45	0.1	*	*	*
20	0.4	0.45	*	*	*	*
21	0.4	0.45	*	*	*	*
22	0.4	0.45	*	*	*	*
23	0.4	0.45	*	*	*	*
24	0.4	0.45	*	*	*	*
25	0.65	0.6	*	*	*	*
26	0.65	0.65	*	0.2	*	*
27	0.6	0.65	*	0.2	*	*
28	0.5	0.65	*	0.2	*	*
29	0.5	0.6	*	0.2	*	*
30	0.5	0.5	*	*	*	*
31	0.5	.....	*	*	.....	*

*Creek dry.

DAILY Gauge Height and Discharge of Maple Creek, near Maple Creek, Sask., for 1909.

Day. Day.	March.		April.		May.		June.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft*
1	.....	.....	†† 2.4	13.6	1.4	10.3	1.2	6.6
2	.....	.....	3.2	46.7	1.5	12.5	1.1	5.2
3	.....	.....	3.0	41.4	3.5	115.5	1.1	5.2
4	.....	.....	2.7	30.8	4.2	176.4	1.0	4
5	.....	.....	2.6	30	3.7	131.8	1.0	4
6	.....	.....	2.5	30.6	2.2	35.4	1.0	4
7	.....	.....	1.85	14.2	1.9	24	1.1	5.2
8	.....	.....	1.6	12.1	1.7	17.7	1.2	6.6
9	.....	.....	1.8	23.4	1.7	17.7	1.2	6.6
10	.....	.....	3.6	126.6	1.6	15	1.0	4
11	.....	.....	2.0	30	1.7	17.7	1.0	4
12	.....	.....	1.75	20.3	2.1	31.3	1.0	4
13	.....	.....	1.8	20.6	1.9	24	0.9	2.9
14	.....	.....	1.6	15	1.7	17.7	0.9	2.9
15	.....	.....	1.2	6.6	1.6	15	1.2	6.6
16	.....	.....	1.12	5.5	1.6	15	1.0	4
17	.....	.....	2,0	27.5	1.6	15	1.0	4
18	.....	.....	2.2	35.4	2.2	35.4	1.0	4
19	.....	.....	2.71	61	2.4	44.5	1.7	17.7
20	.....	.....	3.2	92.9	2.1	31.3	*	.....
21	.....	.....	2.71	61	1.8	20.7	*	†
22	.....	.....	1.89	23.8	1.7	17.7	4.8	249
23	.....	.....	1.6	15	3.9	148.6	3.6	111.2
24	.....	.....	1.7	17.7	3.0	79	2.7	51.7
25	.....	.....	2.4	44.5	2.2	35.4	2.4	36.6
26	.....	.....	3.3	100.2	1.9	24	2.4	36.6
27	.....	.....	2.55	52.1	1.6	15	2.5	41.4
28	.....	.....	2.0	27.5	1.5	12.5	3.0	69.3
29	2.56	8.2	1.7	17.7	1.5	12.5	3.0	69.3
30	2.5	10.1	1.6	15	1.3	8.3	2.4	36.6
31	2.21	7.2	.....	.....	1.25	7.4	.....	.....

*No gauge height observation.

†Creek overflowed its banks. Maximum gauge height 8.8 feet.

††Gauge heights for the month of April are not the mean. Owing to mild days and cold nights the stream was somewhat higher in the evening, when the observations were made, than in the morning.

DAILY Gauge Height and Discharge of Maple Creek, near Maple Creek, Sask., for 1909. —*Concluded.*

Day.	July.		August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	2.4	36.6	1.3	0.8	0.8	0.04	0.7	0.03
2	2.3	32.1	1.2	0.4	0.7	0.03	0.7	0.03
3	1.8	13.1	1.2	0.4	0.7	0.03	0.7	0.03
4	1.8	13.1	1.2	0.4	0.7	0.03	0.7	0.03
5	1.8	13.1	1.1	0.2	0.7	0.03	0.7	0.03
6	1.8	13.1	1.1	0.2	0.7	0.03	0.7	0.03
7	1.9	16.5	1.1	0.2	0.6	0.02	0.7	0.03
8	1.8	13.1	1.0	0.1	0.6	0.02	0.7	0.03
9	1.6	7	1.0	0.1	0.6	0.02	0.6	0.02
10	1.6	7	1.0	0.1	0.6	0.02	0.6	0.02
11	1.8	13.1	1.0	0.1	0.6	0.02	0.6	0.02
12	2.3	32.1	0.9	0.06	0.7	0.03	0.6	0.02
13	2.3	32.1	0.9	0.06	0.7	0.03	0.6	0.02
14	2.3	32.1	0.9	0.06	0.7	0.03	0.6	0.02
15	2.4	36.6	0.9	0.06	0.7	0.03	0.6	0.02
16	2.4	36.6	0.8	0.04	0.7	0.03	0.7	0.03
17	2.5	41.4	0.8	0.04	0.7	0.03	0.7	0.03
18	1.6	7	0.8	0.04	0.8	0.04	0.7	0.03
19	1.6	7	0.8	0.04	0.8	0.04	0.8	0.04
20	1.6	7	0.8	0.04	0.8	0.04	0.8	0.04
21	1.5	4.3	0.8	0.04	0.8	0.04	0.9	0.06
22	1.4	2.2	0.8	0.04	0.8	0.04	0.9	0.06
23	1.3	0.8	0.8	0.04	0.8	0.04	0.8	0.04
24	1.3	0.8	0.8	0.04	0.8	0.04	0.8	0.04
25	1.3	0.8	0.8	0.04	0.8	0.04	0.8	0.04
26	1.2	0.4	0.8	0.04	0.7	0.03	0.8	0.04
27	1.3	0.8	0.8	0.04	0.7	0.03	0.8	0.04
28	1.4	2.2	0.8	0.04	0.7	0.03	0.8	0.04
29	1.3	0.8	0.8	0.04	0.7	0.03	0.8	0.04
30	1.5	4.3	0.8	0.04	0.7	0.03	0.8	0.04
31	1.4	2.2	0.8	0.04	.....	.....	0.8	0.04

MONTHLY Discharge of Maple Creek, near Maple Creek, Sask., for 1909.

[Drainage area, 91 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth-in inches on drainage area.	Total in acre-feet.
March (29-31)	10.1	7.2	8.5	.093	.010	51.
April	126.6	5.5	35.3	.388	.433	2,100.
May	176.4	7.4	38.2	.420	.484	2,349.
June (1-19—22-30)	249	2.9	28.7	.315	.328	1,593.
July	41.4	0.4	13.8	.152	.175	852.
August	0.8	0.04	0.12	.0014	.0016	7.7
September	0.04	0.02	0.03	.0003	.0003	1.8
October	0.04	0.02	0.03	.0004	.0005	2.
The period						6,956

NOTE.—June 20 and 21, flood period, not included.

GAP CREEK AT SMALL'S RANCHE.

This station was established April 25, 1909 by F. T. Fletcher. It is located on Section 3, Tp. 10, Range 27, West of the 3rd Meridian, about four hundred yards west of the surveyed trail from Maple Creek to Tenmile and about twelve miles south of Maple Creek.

The channel is straight for 600 feet above and below the station. The right bank is high and will not overflow except at very extreme floods stages; the left bank is much higher than the right and will not overflow at any stage of the stream. The bed of the stream is composed of loose, coarse gravel. The current is sluggish.

The gauge, which is read daily by Wm. Small, is a plain rod, graduated to feet and hundredths, spiked firmly to a vertical post sunk in the bed of the stream at the right bank and securely stayed to the bank. The gauge is referred to bench marks as follows: (1) The top of the initial point stake on the right bank, marked B. M.; elevation, 8.08 feet above gauge zero. (2) The top of the final point stake, driven close to the ground on the left bank and marked B. M.; elevation, 8.09 feet above the zero of the gauge. (3) Nail-heads on top of the ground-log at the southwest corner of a cow shed, just below the cross-section and on the right bank; elevation, 9.60 feet above gauge zero.

Discharge measurements are made at the regular station by wading and at very low stages a weir is used. The regular station is a cross-section taken 250 feet above the gauge and the initial and final point stakes are located on the right and left banks of the stream, respectively, at this cross-section. The initial point for soundings is a square stake driven close to the ground on the right bank and marked B. M.

Discharge Measurements of Gap Creek at Small's Ranche in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
		Feet.	*Sq. ft.*	*Ft. per sec.*	*Feet.*	*Sec.-ft.*
March 30	P. M. Sauder	7.5	3.58	2.86	.....	10.2
April 23	F. T. Fletcher	29.0	27.3	0.80	2.46	21.9
May 4	do	43.2	51.8	3.07	3.19	159
May 29	H. R. Carscallen	25.0	14.8	0.40	2.22	5.94
July 2	do	26.0	29.1	0.32	2.31	9.36
July 23	do	1.25	*	0.315	2.10	0.70
August 10	do	1.25	*	0.051	2.00	0.05
September 10	do	.....	.....	.....	1.70	Nil.†
September 30	do	.....	.....	.....	1.83	Nil.†
November 6	do	.....	.....	.....	1.94	Nil.†

*Weir measurements.

†Flow is practically zero, although a spring breaks out about 250 feet above the gauge and has a very small discharge (too small to measure satisfactorily.)

DAILY Gauge Height and Discharge of Gap Creek, at Small's Ranche, for 1909.

Day.	April.		May.		June.		July.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1	.....	.....	2.3	9	2.1	0.7	2.5	26.2
2	.....	.....	2.5	26.2	2.1	0.7	2.35	12.7
3	.....	.....	3.0	113	2.1	0.7	2.3	9
4	.....	.....	3.1	136.7	2.1	0.7	2.3	9
5	.....	.....	3.0	113	2.1	0.7	2.3	9
6	.....	.....	2.5	26.2	2.1	0.7	2.3	9
7	.....	.....	2.4	16.4	2.1	0.7	2.3	9
8	.....	.....	2.35	12.7	2.05	0.4	2.3	9
9	.....	.....	2.3	9	2.2	3.9	2.25	6.4
10	.....	.....	2.4	16.4	2.15	2.3	2.25	6.4
11	.....	.....	2.45	21.3	2.1	0.7	2.2	3.9
12	.....	.....	2.5	26.2	2.1	0.7	2.2	3.9
13	.....	.....	2.5	26.2	2.1	0.7	2.25	6.4
14	.....	.....	2.5	26.2	2.1	0.7	2.3	9
15	.....	.....	2.5	26.2	2.1	0.7	2.25	6.4
16	.....	.....	2.45	21.3	2.1	0.7	2.2	3.9
17	.....	.....	3.43	222.6	2.3	9	2.2	3.9
18	.....	.....	3.4	214.3	2.5	26.2	2.2	3.9
19	.....	.....	2.9	90.8	2.8	71	2.15	2.3
20	.....	.....	2.5	26.2	5.3	†	2.15	2.3
21	.....	.....	2.4	16.4	6.5	†	2.1	0.7
22	.....	.....	2.4	16.4	3.1	136.7	2.1	0.7
23	.....	.....	3.72	304.7	2.8	71	2.1	0.7
24	2.5	26.2	2.6	38.7	2.8	71	2.1	0.7
25	3.0	113	2.4	16.4	2.8	71	2.1	0.7
26	3.2	162	2.35	12.7	2.8	71	2.1	0.7
27	2.65	46.1	2.3	9	2.7	53.6	2.1	0.7
28	2.55	32.5	2.25	6.4	2.6	38.7	2.1	0.7
29	2.4	16.4	2.2	3.9	3.0	113	2.6	38.7
30	2.25	6.4	2.2	3.9	2.9	90.8	2.4	16.4
31	.....	.....	2.15	2.3	.....	.....	2.3	9

†Data for computation of discharges insufficient.

Maximum gauge height in the June flood of 1909, was 8.8 feet and occurred on June 21

DAILY Gauge Height and Discharge of Gap Creek, at Small's Ranche, for 1909—*Con.*

Day.	August.		September.		October.	
	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.ft-.*	*Feet.*	*Sec.-ft.*
1	2.25	6.4	1.8	*	1.8	*
2	2.25	6.4	1.8	*	1.8	*
3	2.2	3.9	1.8	*	1.8	*
4	2.15	2.3	1.8	*	1.8	*
5	2.1	0.7	1.8	*	1.8	*
6	2.1	0.7	1.8	*	1.8	*
7	2.05	0.4	1.8	*	1.8	*
8	2.05	0.4	1.8	*	1.8	*
9	2.0	0.05	1.8	*	1.8	*
10	2.0	0.05	1.8	*	1.8	*
11	2.0	0.05	1.8	*	1.9	0.02
12	2.0	0.05	1.8	*	1.9	0.02
13	2.0	0.05	1.8	*	1.9	0.02
14	2.0	0.05	1.8	*	1.9	0.02
15	2.0	0.05	1.8	*	1.9	0.02
16	2.0	0.05	1.8	*	1.9	0.02
17	1.95	0.04	1.8	*	1.9	0.02
18	1.95	0.03	1.8	*	1.9	0.02
19	1.9	0.02	1.8	*	1.9	0.02
20	1.9	0.02	1.8	*	1.9	0.02
21	1.9	0.02	1.8	*	1.9	0.02
22	1.9	0.02	1.8	*	1.9	0.02
23	1.9	0.02	1.8	*	1.9	0.02
24	1.9	0.02	1.8	*	1.9	0.02
25	1.9	0.02	1.8	*	1.9	0.02
26	1.9	0.02	1.8	*	1.9	0.02
26	1.9	0.02	1.8	*	1.9	0.02
27	1.9	0.02	1.8	*	1.9	0.02
28	1.85	0.01	1.8	*	1.9	0.02
29	1.85	0.01	1.8	*	1.9	0.02
30	1.8	*	1.8	*	1.9	0.02
31	1.8	*	.....	.....	1.9	0.02

*No flow in stream, water standing in pools, August 30—October10.

Monthly Discharge of Gap Creek at Small's Ranche, for 1909.

[Drainage area, 69.5 square miles.]

Month.	Discharge in second-feet.				Run-off.	
	Maximum.	Minimum.	Mean.	Per square mile.	Depth-in inches on drainage area.	Total in acre-feet.
April (24-30)	162	6.4	57.5	.828	.216	799
May	305	2.3	51.9	.748	.862	3,195
June (1-19—22-30)	137	0.4	29.9	.431	.449	1,663
July	38.7	0.7	7.14	.103	.119	439
August	6.4	0.0	0.71	.0102	.012	43.3
September	0.0	0.0	0.0	.000	.000	0
October	0.02	0.0	0.01	.0002	.0002	0.8
The period						6,140

Note.—June 20 and 21, the flood period, not included.

McShane Creek at Small's Ranche.

This station was established April 23, 1909 by F. T. Fletcher. It is located on Section 4, Tp. 10, Range 27, West of the 3rd Meridian, at the highway bridge on the surveyed trail from Maple Creek to Tenmile, about twelve miles south of Maple Creek. The station is about 600 feet above the mouth of the creek and about 500 feet from Wm. Small's house. Mr. Small diverts water from the stream for irrigation purposes and as the intake of his ditch is above the station, records of daily flow do not represent the full discharge of the creek when water is being used in the ditch.

The channel is straight for 100 feet above and 200 feet below the station. Both banks are high and not liable to overflow. The bed of the stream is composed of coarse gravel and shifts at high stages. The current is swift.

The gauge, which is read daily by Mr. Small, is a plain rod, graduated to feet and hundredths, attached firmly to the right abutment on the downstream side of the bridge. The gauge is referred to bench marks as follows: (1) Nail-heads in the top of the wooden stringer at the north or right side of the stream and on the downstream side of the bridge, marked B.M. with white paint; elevation, 9.68 feet above the zero of the gauge. (2) The top of the iron pin in the road mound situated 350 feet south of the bridge on the east side of the trail; elevation, 16.96 feet above the zero of the gauge.

Discharge measurements are made from the downstream side of the bridge. The initial point for soundings is the inner face of the right abutment of the bridge. Low-water measurements are made near the gauge by wading and at very low stages a weir is used.

Discharge Measurements of McShane Creek at Small's Ranche, in 1909.

Date.	Hydrographer.	Width.	Area of section.	Mean velocity.	Gauge height.	Discharge.
April 23	F. T. Fletcher	7.5	1.69	0.87	0.51	1.47
May 4	do	11.0	4.52	2.51	0.82	11.3
May 29	H. R. Carscallen	4.0	1.18	0.77	0.92	0.91
June 17	do	6.8	7.91	0.69	1.03	5.48
July 2	do	2.5	0.78	0.31	0.48	0.24
July 23	do					Nil.*
August 10	do					Nil.*
September 10	do					Nil.*
September 30	do					Nil.*
November 6	do					Nil.*

*Creek dry.

Daily Gauge Height and Discharge of McShane Creek, at Small's Ranche, for 1909.

Day.	April.		May.		June.		July.	
	Gauge Height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.	Gauge height.	Discharge.
	Feet.	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*	*Feet.*	*Sec.-ft.*
1			0.5	1.35	0.7	0.0	0.7	1.25
2			0.6	3.4	*		0.5	0.35
3			0.8	10.4	*		0.5	0.35
4			0.8	10.4	*		0.5	0.35
5			0.9	15	*		0.5	0.35
6			0.5	1.35	*		0.6	0.7
7			0.5	1.35	*		0.6	0.7
8			0.5	1.35	*		0.5	0.35
9			0.5	1.35	1.0	4.05	0.3	0.0
10			0.6	3.4	1.0	4.05	*	
11			0.6	3.4	0.9	0.6	*	
12			0.6	3.4	0.9	0.6	*	
13			0.5	1.35	0.8	0.1	0.9	3.15
14			0.5	1.35	0.7	0.0	0.6	0.7
15			0.5	1.35	05	0.0	0.5	0.35
16			0.5	1.35	*		*	
17			0.85	12.7	1.05	5.9	*	
18			0.82	11.3	1.45	20	*	
19			0.6	3.4	1.8	38	*	
20			0.5	1.35	4.5†		*	
21			0.5	1.35	1.9	44.3	*	
22			0.5	1.35	1.0	4.8	*	
23			1.6	50	0.9	3.15	*	
24	0.5	1.35	1.0	13.4	0.8	2	*	
25	0.8	10.4	1.0	10.4	0.9	3.15	*	
26	0.7	6.4	0.9	4.1	0.8	2	*	
27	0.5	1.35	0.9	2.5	0.8	2	*	
28	0.6	3.4	0.9	1.4	0.7	1.25	*	
29	0.4	0.4	0.9	0.75	0.7	1.25	0.7	1.25
30	0.5	1.35	0.8	0.1	0.7	1.25	0.4	0.1
31			0.8	0.1			0.2	0.0

*Creek dry June 2–8, July 10–12, July 16–28 and August 1—October 31.
†Data for computation of discharge insufficient.
‡Discharges for all gauge heights above 1.05 feet are computed discharges.
aSmall stream in Wm. Small's ditch during month of May.

Miscellaneous Measurements.

Miscellaneous Discharge Measurements in the vicinity of Walsh, Irvine and Medicine Hat, in 1909.

Date.	Hydrographer.	Stream.	Locality.	Discharge.
				Sec.-ft.
August 30	H. R. Carscallen	Boxelder Creek	Sec. 2-12-30-3	Nil.
August 30	do	Stony Creek	Sec. 25-11-2-4	Nil.
August 30	do	Mackay Creek	Sec. 26-11-1-4, near Walsh	Nil.†
August 31	do	Ross Creek	At Irvine	*0.025
August 31	do	Bullshead Creek	Traffic bridge, near Dunmore Jct.	Nil.
August 31	do	Gros Ventre Creek	Traffic bridge at Norton	Nil.
August 31	do	Seven persons River;	At Medicine Hat	Nil.

*Weir measurement below C.P. Railway dam. Discharge obtained is merely the seepage through the dam.
†Water standing in pools in the creek bed.

Respectfully submitted,

H. R. CARSCALLEN.

Gauge Rod at Writing-on-Stone.

REPORT

ON

THE MILK RIVER, ALBERTA

SUBMITTED TO

THE CHIEF HYDROGRAPHER, DEPARTMENT OF INTERIOR

BY

F. H. PETERS, C.E., District Hydrographer.

JANUARY 14TH, 1910.

To the Chief Hydrographer,
Department of the Interior,
Calgary, Alta.

Sir,—I have the honour to submit herewith my report of the work done by the party under my charge on the Milk River, Alberta, during the summer of 1909.

I have the honour to be, Sir,
Your obedient servant,
F. H. PETERS.

Ottawa, January 14, 1910.

REPORT ON MILK RIVER.

General Description.

The Milk River rises on the eastern slope of the foothills in the Blackfeet Indian Reserve in the United States. Its headwaters run down in two main streams which are known, after entering Canada, as the north and south branches. The north branch runs in a north-easterly direction through the Blackfeet Reserve for a distance of about 15 miles and then enters Canada near the south-east corner of the south-west quarter of Section 3, Township 1, Range 23, West of 4th Meridian. From the international boundary the stream continues in a north-easterly direction for about nine miles when it bends to the east and runs in an easterly direction through the second tier of townships to its junction with the south branch at the south-west corner of the north-east quarter of Section 20, Township 2, Range 18, West of the 4th Meridian.

The south branch runs to the south and east of, and parallels the north branch for a distance of about 48 miles, as the crow flies, through the Blackfeet Reserve and then enters Canada near the south-east corner of the south-west quarter of Section 1, Township 1, Range 20, West of the 4th Meridian. From the international boundary it runs in a north-easterly direction to its junction with the north branch. From the junction of the two branches the Milk River runs in an easterly direction through the second tier of townships in Canada to the east boundary of range 7. From this point the river runs in a south-easterly direction to its first point of crossing the international boundary into the United States. This first point of crossing is near the south-west corner of the south-east quarter of section 5, Township 1, Range 5, west of the 4th Meridian. The river runs for a distance of about 1,540 feet (mid-stream measurement) through the Uuited States, then crosses back into Canada and runs in an easterly direction about one quarter of a mile north of the international boundary to a point near the south-west corner of the south-east quarter of Section 3, Township 1, Range 5, West of the 4th Meridian where it crosses again into the United States. The river runs for a distance of about 2,440 feet (mid-stream measurement) through the United States and then crosses back into Canada. From this point the river meanders in an easterly direction through Canada to a point on the international boundary about 900 feet west of the east boundary of Section 1, Township 1, Range 5, West of the 4th Meridian where it finally crosses into the United States. This point is known as the "Eastern Crossing." The length of the course of Milk River in Canada from the western crossing of th north branch to the eastern crossing is 179 miles. The length of the course of the south Branch in Canada is 20 miles.

(To follow the description above, refer to plates 1 and 2

Gauge Rod on the North Branch at Mackie's Ranche.

Character of River Valley.

Throughout its course in Canada from the western crossing of the north branch to the eastern crossing the Milk River runs through a well defined valley bordered on each side by a range of hills. The whole of its water-shed in Canada is bald prairie land. The river receives a number of small tributary creeks along its course all of which discharge a considerable volume of water during the spring freshets; they all dry up by July 1, (about) and have no considerable discharge again until late in the fall when some of them have a small flow for perhaps a month before the freeze up. The same remarks apply to the south branch in its course through Canada.

The general conditions of flow in the river are such as are typical of all rivers which have a watershed devoid of tree growth: that is it is subject to extreme floods during the freshet period and to correspondingly low flow during the summer months. From its headwaters to the eastern crossing the total area of the watershed of Milk River is 2,448 square miles. Of this total amount 1,645 square miles are in Canada and 803 square miles in the United States.

(Refer to table B.)

Personnel and Equipment of Party.

The party consisted of one engineer in charge, one assistant, one teamster and a cook. The party was equipped with a camping outfit which included one heavy team and Bain wag on, one driving team and democrat and a saddle pony. The party worked from Milk River station as a base. The instrumental equipment of the party included:

Draughting instruments.
One pocket sextant.
One Y level (Gurley's 14" with compass)..
One large Price electric meter.
One small Price electric meter.
One stop watch—cutting to 1-5 second.
One Price acoustic meter.

Instructions regarding work required.

The instructions given to the engineer in charge were to the effect that the work required of the party was to make complete stream measurements covering the whole of the Milk River in Canada for the whole season and also to prepare permanent stations along the river so that records could be made in succeeding seasons covering all stages of flow. In addition to this it was desirable that a reconnaissance be made of the tributaries of Milk River as far east as Battle Creek.

The conditions to be confronted were these. The whole territory to be covered meant a distance to be travelled by trail of 214 miles from end to end. The distance by trail to cover the Milk River alone is about 150 miles and throughout all of this territory no definite information was available as to where gauging stations could be developed so that it was necessary to first of all make a reconnaissance trip over the whole territory, and it was also realized that to get complete discharge measurements on the Milk River, at sufficiently close intervals, would mean that the party would have to do nothing but travel continuously up and down the river and this would leave no time for the construction of permanent stations.

After due consideration of all these points it was decided that the best policy to adopt, for the best ultimate results, was one which would ensure the river being properly prepared for complete measurements in the future, and at the same time get as many stream measurements as possible during the season.

Work done by the party.

The party was organized by the Chief Hydrographer at Lethbridge and commenced work in the field at Milk River station on July 1, 1909.

From July 1 to August 27, the party made a reconnaissance trip covering all the territory from Peter's ranche to Spencer's lower ranche and on the Battle Creek. (Refer to plates 1 and 2.) During this time nine days were spent driving with a light outfit in the democrat making special trips to get discharge measurements and four days the party were idle owing to heavy rains.

From August 28 to October 28, the party was engaged erecting permanent stations from Peter's ranche to Spencer's lower ranche. (Refer to plate 1 and table A.)

On October 30, the engineer in charge returned to Calgary and the assistant from October 31 to November 15, made a flying trip in the democrat taking discharge measurements from Peter's ranche to Spencer's lower ranche.

Total time of party in the field 138 days. During this time 49 stream measurements were made and 7 permanent gauging stations were erected.

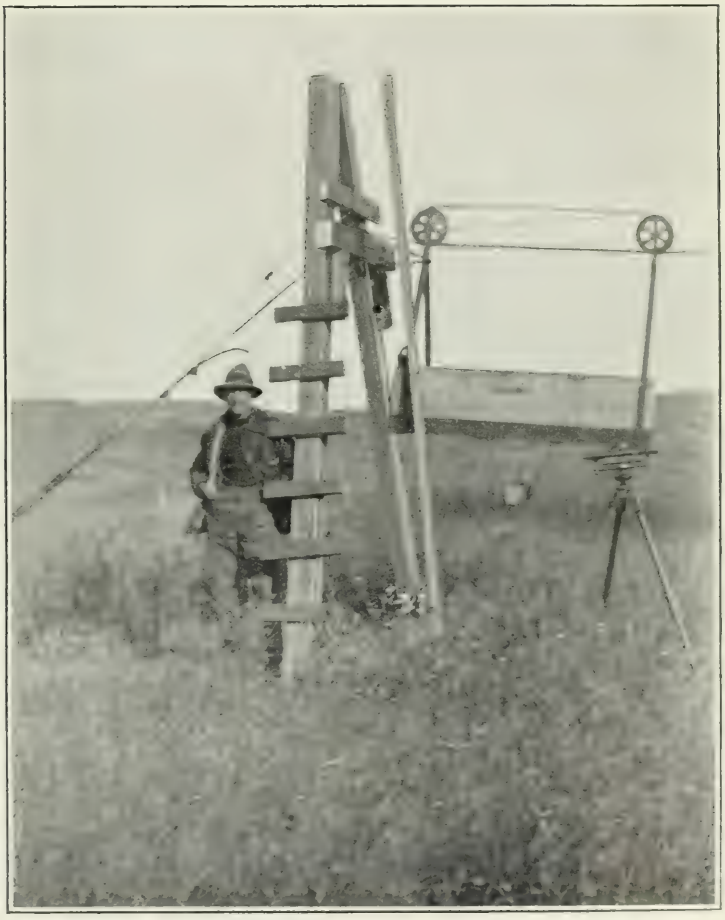
Reconnaissance Trip.

The object aimed at on this part of the work was to make a careful study of the Milk River and pick out sections which were suitable for making immediate stream measurements and which were also suitable for establishing permanent stations. Cross-sections of the river throughout its whole length in Canada, all have the same controlling elements. They all have one high bank and one low; they are all liable to overflow at flood and the soil is sandy loam or gravel. There are very few settlers along the river who live close to it so that great difficulty was experienced in finding gauge readers, and in picking out the locations for the several stations the main point which had to be considered was to find a place where a permanent gauge reader could be relied upon. Another difficulty encountered was to erect gauge rods which would not be liable to destruction by the ice, the spring floods, or by the river cutting away the bank against which they were placed. The type of gauge rod support adopted was as follows: A strong upright varying from 6 to 12 feet in length was sunk in the bed of the stream to a solid footing. This upright was secured in place by two strong braces nailed to it near the top, and triangling off and nailed to, two solid posts sunk four feet deep in the bank. Across these supports a platform was laid and the whole well weighted down with large stones or with bags of sand where stones were not procurable. To one face of the upright the gauge rod was securely nailed with 6 inch spikes. The standard form of gauge rod used was a wood staff graduated to one-hundredths of a foot and showing 10 feet. (See plates 21 and 22.)

After the location of the station had been decided on the procedure was as follows: Two posts were sunk, one on each side of the river, and between these a "low water" measuring wire was stretched for use in metering by the wading method. This wire was graduated to 5 feet and every 10 feet marked by a tin hanger. The zero distance of the section was usually taken on the left hand side of the stream and was always marked by a cedar post solidly sunk in the ground and marked accordingly. At some convenient place—usually on the line of the section—a large cedar post was sunk to such a depth that it would not be disturbed by frost. This was cut off leaving only about 10 inches above the ground so as not to be disturbed by cattle, and on it a bench mark was made. The gauge rod was then erected and its zero referred to the B.M. by very careful levelling.

The cross-section at the station was then carefully developed with the level for use in designing the structures for a permanent station. In this connection evidences of extreme high water were always carefully searched for and their elevations noted.

During this part of the work a general reconnaissance of all the country travelled through was made, particular attention being paid to finding the shortest routes by trail between stations, and this information is shown graphically with distances tabulated on plate 2 attached to this report. The class of the various trails is shown by the legend on this plate,



Type of Support use at Peter's Ranche.

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but two points must be kept in mind in formulating any plan for covering this territory with hydrographers for making stream measurements. During the dry season the trails are all fairly hard and easy to travel over but they run through a clay soil for the most part and therefore in the spring they are very soft and hard to travel over. At all the points where the trails shown cross the river, good low water fords exist, but these fords must be approached with caution during periods of high water and are impassable during periods of extreme flood. These points are of importance because the several stations must be visited at short intervals during periods of high water, and it is during this time that the trails are all hard to travel over while some of them are barred altogether on account of the fords being impassable.

The information regarding the country east of the eastern crossing will be discussed at the end of this report.

Construction Trip.

The Milk River in Canada has no dams across it, and the only point where it is spanned by a bridge is at Milk River station, so it was early decided to adopt the "cable car" type of Station for establishing the permanent gauging stations.

In the first instance it was decided to erect these stations so that they would span the whole width which might be covered by the stream at its highest flood. However, after an examination of the river it was found that the banks were subject to such a wide overflow that this would be impossible. The stations as finally erected span the stream from bank to bank and allow the measurement of the main bulk of the discharge at all stages of flood. During periods of extreme flood the cable supports are liable to be submerged, but as the duration of these floods is short the actual amount of water passing around the stations will be small and in many cases is impossible of accurate measurement by any means owing to scrub, brush and other obstructions.

In some cases one support was liable to such deep submersion that it was liable to destruction by flood. In such cases the support was placed where it would have some natural protection (such as in a clump of trees) or when it was necessary to place it where the current would have a clear sweep, the base of the support was well protected by a riprap of large stones. At every station a meter stay-line wire was stretched 30 feet upstream for use in flood measurements.

The main timbers used at all stations were of dimensions 6x6 inches. It was realized that for supports of a height of 20 feet or more these were rather light, but, owing to the difficulty of obtaining any material of larger dimensions and also to the great distances and bad roads over which the materials had to be hauled, they were adopted as the most suitable under existing conditions.

The conditions existing at Spencer's lower ranche (near the eastern crossing) are typical of those existing on the river. Plate 3 attached to this report show the principal details of the permanent station erected at this point, and the same details are typical of all the cable stations except the low station erected at Peter's ranche. At this station the form of support is somewhat modified as can be seen by referring to Plate 23.

Plate 4 attached to this report shows the details of the standard form of cable car adopted.

(Refer to Table A attached to this report for list of permanent stations.)

(Refer to Plates 23, 24, 25, 26, 27.)

Method of Stream Measurements.

All the discharge measurements made during the season were made by the "one point method." That is, at each distance of the cross-section the velocity was measured at a depth equal to 0.6 of the measured depth and this velocity was taken as representing the mean velocity of the water in that vertical. The large Price electric meter was considered

the most reliable instrument and was used for all measurements where the depth of water was sufficient to allow of its immersion. For the shallower cross sections the small Price electric meter was used. At some of the wading stations which were chosen at the beginning of the season, the velocity of the current later in the season became too slow to allow of accurate measurement. The rule followed in such cases was as follows:—When the mean velocity at the section fell below 0.5 feet per second the section was abandoned and a new one located at the nearest place where the current had a suitable velocity. The great majority of the stream measurements were made by the wading method, and in a few cases where the depth of water was too great they were made by the use of a collapsible canvas boat. The usual procedure was to immerse the meter at both edges of the stream and at intervals of 5 feet across the stream.

Compilation of Data.

The accuracy of the data computed from the field measurements is affected by the following conditions:—

(i) The gaugings at each station were not frequent enough.

(ii) The gauge rods in some cases were not read closely enough by the gauge readers.

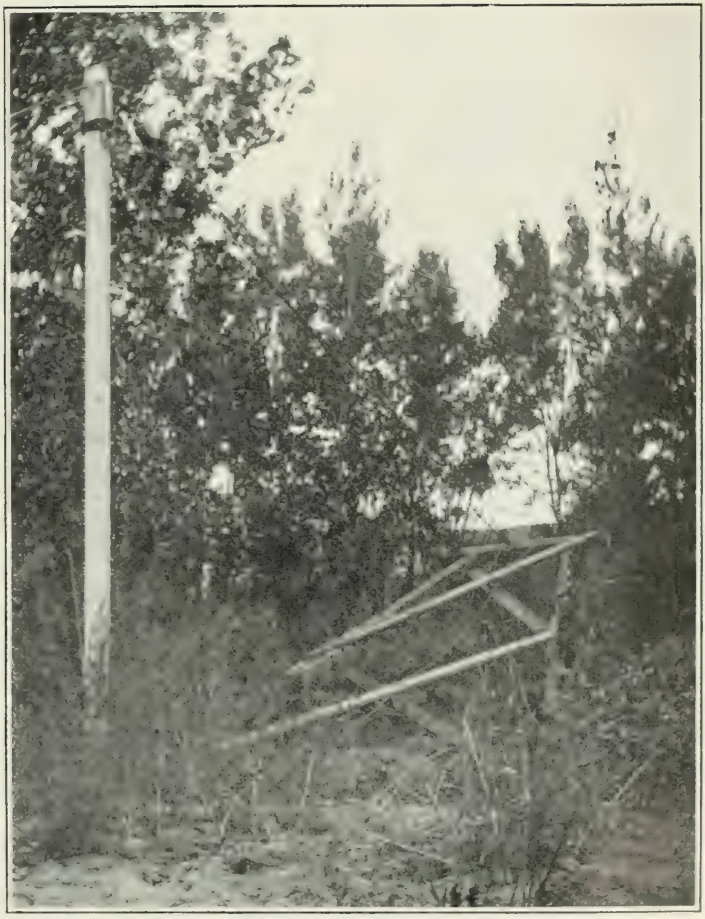
(iii) The inability to check the meter ratings.

(i) It has been noted in the first part of this report the conditions which made it impossible for the party to devote all their time to stream measurements. The gaugings at each station were made frequently enough to cover all considerable changes in gauge height and therefore theoretically they should have been sufficient to develop a good station rating curve for the range of gauge heights which they covered, but it was found that all the sections, particularly from Milk River eastwards, had shifting bottoms, and even during periods when the gauge height was stationary or changing very slowly the river was found to have a continually shifting bottom. This condition necessitates the shifting of the station rating curve to meet the varying conditions of the river bottom, and owing to the considerable changes which took place in the river bottom between gaugings it was sometimes difficult to know how to manipulate the curve correctly. The manipulation of the station rating curves, made necessary on this account, was performed by the "Bolster method" and although much thought and care was bestowed on this part of the work the gaugings were not frequent enough to ensure great accuracy.

Plate 5 attached to this report shows the changes which took place in the river bottom at the sections used at Milk River from May 18 to October 5, 1909, and also the necessary manipulation of the station rating curve to cover the same period. The conditions at this station are typical of those existing on the whole course of the river.

(ii.) The standard type of gauge rod inslalled was graduated to one-hundredths of a foot. In some cases the gauge readers employed were men of little or no education and it was found very difficult to instruct these men to read the gauge rod to hundredths correctly. These men would gradually drift into the habit of reading the gauge rod to the nearest tenth or perhaps half-tenth, which made the gauge heights recorded by them liable to an error up to the 5-100ths of a foot. The hydrographer, when visiting stations frequently noticed these discrepancies on reading the gauge to hundredths. At these stations where the gauge rod was read only to tenths the station rating curve was constructed by plotting gauge heights only to the nearest tenth because this method minimizes the error in discharges taken from the curve corresponding to gauge heights read only to the nearest tenth.

(iii) The meters used during the seasons were new (supplied by W. & L. E. Gurley of Troy, N.Y.), and had the usual rating tables attached to them, which were used for computing discharges. These rating tables are not the ratings of the actual meters themselves but are the mean of many ratings of the same type of meter. It has been found in practice that these rating tables can be relied upon so that their use in the first instance was justifiable. It is also found in practice that a new meter, provided it has careful handling and is well supplied with new points, usually does not change its rating until it has had considerable use.



Left Frame, at Spencer's Lower Ranche, ready to hoist.
133—p. 184.

However the action of a current meter cannot be relied upon and it is highly desirable and the usual practice to rate every meter periodically in order to make sure that its rating is correct. During the past season there was no opportunity to rate the meters used so that the rating tables mentioned above were used for computing discharges all through the season without any check on their accuracy.

All the information collected during the season regarding stream measurements has been compiled in the following form: All the discharge measurements made at the several stations have been tabulated on sheets headed "discharge measurements at regular stations".

The daily gauge heights and discharges at the several stations have been tabulated on sheets headed "daily mean gauge heights and discharges."

For the purpose of comparison between stations this same information has been again tabulated on sheets headed "Milk River, Alberta, daily discharge sheet." Each one of these sheets cover a period of one month and on it the daily gauge heights and discharges are tabulated for all of the stations on the river taken in order going down stream.

Table B attached to this report shows, for each station, the area of the watershed, the total run-off in acre feet for the period—August 8 to October 31—and also the run-off per square mile for the same period.

This table practically covers the period which is known as the "dry season" and is useful in that it shows the relative contribution to the flow in the river during this season from the different parts of the watershed.

It will be seen on consulting this table that the relative run-off per square mile for that part of the watershed of the north branch above Peter's ranche is extremely high. This is accounted for by the fact that this part of the river is fed by many springs, most of which have a continuous flow all summer. This condition exists in a lesser degree along the river as far down as Knight's ranche. It will also be noticed on consulting Table B. and also the sheets headed "Milk River, Alberta, daily discharge sheet," that the discharge at certain stations is greater than that at the station next below it on the stream. This may be accounted for to some small extent by inaccuracies in the stream measurements, but the large differences shown on these tables are certainly not to be accounted for in this manner. The explanation of these differences (which the writer thinks is the correct one) is that the stream has a large sub-surface flow at some stations while at other stations this flow is brought up into the bed of the stream by underlying impervious strata. Some observations made at Writing on Stone constitute a certain evidence that this condition does exist along the river.

At this station the width of the river channel between banks is about 126 feet and during the summer the actual width of the channel through which the water ran was only about 66 feet. This left a stretch of bare sand on one side of the stream about 60 feet wide and the average elevation of its surface above the water was about 1 foot. Several holes were dug in this stretch of sand and in each one the water was seen to have a quite perceptible motion in the same direction as the stream, proving that there was a considerable flow of water through this stretch of sand which could not be measured at this station.

The effect of turning 1,000 *cu. ft. per second into Milk River.*

In anticipation of the pending Waterways Treaty between the United States and Canada, a short discussion is given of the probable effect of turning 1,000 c.f. per second into the channel of the north branch of the Milk River, whence it would flow down the river channel to the eastern crossing.

The north branch from its western crossing to the junction with the south branch is, during all ordinary stages of flow, a very small stream. Its average summer flow is about 55 cu.ft. per second. Its course through the river valley is exceedingly tortuous and the existing channel is not in any way suited to the carriage of 1,000 cu.ft. per second. If this volume of water was turned into the north branch it would immediately overflow its banks in some places and over the whole course the river would be running with banks practically full and the velocity of the stream would be so high that it would create a very heavy scour. The river banks are everywhere of soft material which is liable to erosion and in a short time

the river channel would adapt itself naturally to the new conditions of flow. This would mean a very decided change in its average cross sectional area and also the river channel would change its course in many places.

The actual change which would take place in the cross section of the river will be better understood from the following: Different rivers flowing through different kinds of country have different characteristic forms of cross section which are directly dependant upon the kind of soil or rock through which they flow, and also upon the slope of the river. Rivers which run through a channel of rock or any kind of hard material, or through clay where the slope is small, have a characteristic cross section in which the depth is great in comparison with the width. The north branch of Milk River running with banks full, would have a cross-section with these characteristics. But from the kind of soil through which the river runs and also from the slope of the river we know that the natural cross section should be one in which the depth is small in comparison with the width. That is to say, the river would gradually widen itself out until it acquired a natural cross-section with a small average depth and great width. This is the character of the cross-section which the river now has below the junction of the north and south branches. From the junction of the north and south branches eastward the conditions would be different because the existing river channel is much wider and the river channel would not have to undergo any great radical change to adapt itself to a continued flow of 1,000 cu.ft. per second. It would, however, have a certain effect on the river channel which may be understood from the following discussion: Over this part of the river, the river channel is continually and slowly changing its course. This is caused by the current cutting out the banks of the river at points where it is thrown against the banks owing to changes in direction of the river's course. This tendency of the river to cut out its banks and shift its course is certainly directly dependant upon the volume of water carried by the stream, and therefore, if an extra 1,000 cu.ft. per second of water is run through this channel it will certainly very much accentuate the tendency of the river to cut out its banks and change its course.

This extra volume of water would not be turned into the stream during periods of flood and therefore would not directly affect the excessive flood discharges which occur annually. However, the passage of this extra volume of water down the stream during the summer months would have an indirect effect upon the overflowing of the banks which occurs annually because, as already stated, it would, particularly on the north branch, have the effect of enlarging the river channel and would therefore to some extent lessen the tendency of the river to overflow its banks at flood periods.

The above remarks will serve to point out the character of the damage which will be done to the river bottom lands of Milk River, but further than this it is impossible to make any estimate of what the damages would be with the information available.

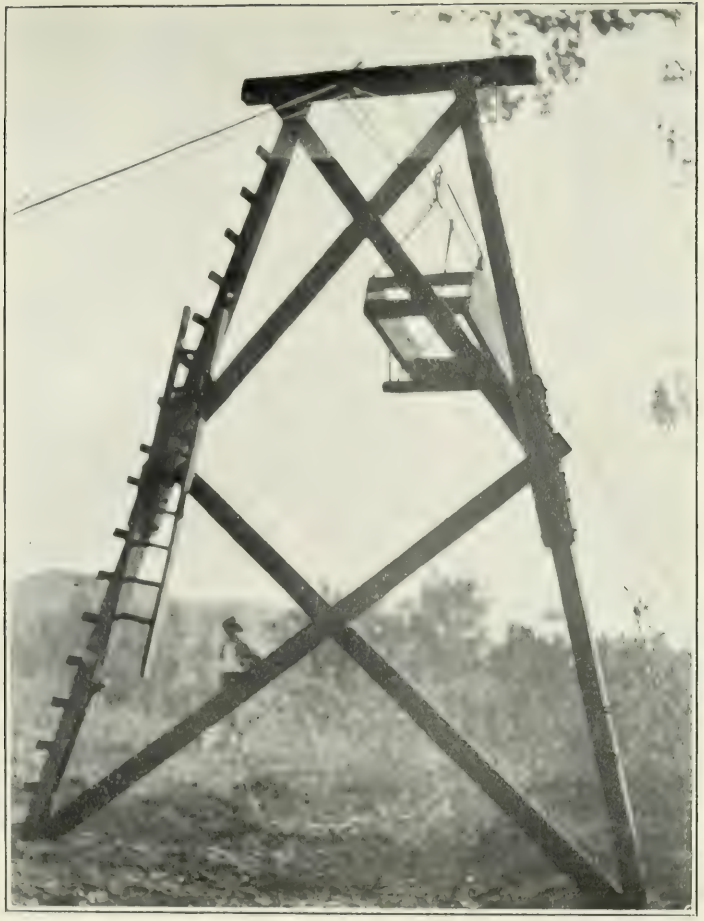
One point can be stated with certainty, and that is that while at present the river is fordable during the summer months at almost any place, with the additional amount of water proposed this would not be the case, and it would be necessary to erect highway bridges across the river at several places.

Table C attached to this report has been computed in an attempt to show approximately the capacity of the river channel at all the permanent stations along its course. The table explains itself but, in referring to it, it must be remembered that all the permanent stations were erected at picked cross-sections where the banks were high, and therefore the computations for "bank full discharges" using these sections, give results with considerably higher discharges than the average cross section of the stream would carry in the respective localities.

Proposed permanent section structure.

It has already been stated in this report that the sections used were all found to have shifting bottoms and that this condition is accentuated as one follows the river down stream from the western crossing of the north branch to the Eastern crossing, and it was pointed out that this condition makes it necessary that gaugings be made at very close intervals in

PLATE No. 25.



Left Frame at Spencer's Lower Ranche in position. Height, 22 feet.

PLATE No. 26.

Left frame at Pendant d'Oreille. Height 17 feet.

order to be able to plot an accurate discharge curve to cover a season's work. It is also propable that, owing to this same condition, the sections on the river will vary so much from season to season that a station rating curve developed from one season's work will be of little value for estimating discharges from gauge heights recorded during any succeeding season, which means that during all the years that information is required of the discharge of the river, gaugings at close intervals must be kept up continually.

There are also certain evidences, as already noted, to show that the Milk River has a considerable sub-surface flow and that this flow at certain stations is brought up to the bed of the stream where it is measurable, while at other stations it flows below the bed of the stream and is not measureable. It is thought that this flow is never far below the bed of the stream and it would be desirable to be able to measure this sub-surface flow at all stations.

It is thought that perhaps the best way to overcome these difficulties, and to prepare the river so that reliable information regarding discharges can be easily obtained in future years, would be to establish permanent sections along the river by artificial means.

Plate 6 attached to this report, shows a plan of proposed structure for establishing a permanent section station at Spencer's lower ranche.

The section at Spencer's lower ranche was used because it is typical of the conditions existing along the river and also because, having the greatest width of any section used and being the most difficult point at which to obtain materials, the estimate of the cost of this structure shows the maximum cost of establishing a structure of this kind at any point on the river. This plan is not intended to be a final plan nor have the minor details of construction been closely looked into, but it merely shows the type of structure which the writer thinks would be practicable. The idea kept in mind in designing this structure was to create a permanent section where all the sub-surface flow would be brought to the surface and to have the floor of sufficient width and with a sufficient depth of water flowing over it to admit of the use of a current meter. It would be necessary to establish these structures at points on the stream where the slope of the stream below the structure would be sufficient to ensure against its being buried by silting up.

A structure of this type would not back up the water in the stream to any appreciable extent and at flood periods it would be liable to complete immersion.

The artificial section created by the structure would be designed to carry the whole volume of the stream at all ordinary stages and after the station rating curve had been once developed to cover all the range of gauge heights, accurate discharges could be estimated at any future time simply by reading the gauge height at the section.

The total cost of this structure is estimated at $3,343.15.

Tables D, E, and F, attached to this report show the several items which constitute this total in detail.

The writer has not been able to find any record of this type of structure having been used before, but he feels confident that the information gained by its use would be very satisfactory and reliable. The writer's main object in including the discussion of this proposed structure in this report, is to have it on record so that the idea may be kept in mind and its merits looked into more carefully in the future than it has been possible to do at the present time.

Reconnaissance Trip East of the Eastern Crossing.

(Refer to Plate 1.)

The first creek of considerable size crossed east of the eastern crossing is Lost Creek. This is a small creek with a wide shallow channel running in a well defined valley with very steep hills on both sides. This creek dries up completely in summer and has a flow only during the spring freshets. It rises near the N.E. corner of Township 1, Range 4, West of 4th Meridian and after a course of about six miles in length crosses the international boundary about 1½ miles west of the east boundary of the same township.

Sage Creek has a narrow deep channel and runs through a level country without any well defined valley. This creek dries up in summer and has a flow only during the spring freshets and sometimes a small flow in the fall. It rises in Township 3, Range 3, West of the 4th

Meridian and after a course of about 19 miles as the crow flies, crosses the international boundary in Section 3, Township 1, Range 2, West 4th Meridian. After crossing the international boundary this creek runs into a dry lake bed of considerable size and as far as could be discovered has no outlet from it. This creek was equipped for stream measurement at a point directly east of Wild Horse Post, R.N.W.M.P. A gauge rod was erected and a measuring wire stretched across the stream. Plate 28 shows a view of this station. Wild Horse Post is 19 miles by trail from Spencer's lower ranch.

Lodge Creek was visited at Willow Creek Post, R.N.W.M.P., which is 25 miles by trail from Wild Horse Post. From high water marks seen at this point this creek is subject to a very large discharge in the spring freshets but its flow ceases during the dry season at this point. The fact that it has no flow during the dry season is no doubt due in part to the fact that the water is used further up stream for irrigation purposes. This creek has a watershed of considerable extent, but as the reconnaissance did not cover this territory it cannot be discussed. The cross-section of the creek was developed at a point near Willow Creek Post where the cross-section was suitable for the future erection of a permanent gauging station.

Battle Creek was visited at Sterling's farm, which is located in the south-east quarter of Section 22, Township 3, Range 27, West of the 3rd Meridian, and is distant 20 miles by trail from Willow Creek Post. At this point a temporary gauge rod was set, a metering taken, and the cross-section developed at a suitable place for the future erection of a permanent gauging station. This stream was visited on August 12, and, at the point noted above, had on this date a flow of 13 cu.ft. per second. This stream has a large area of watershed and from evidences of high water marks it is not subject to very excessive freshet discharge. It has a well defined channel, but runs through fairly level country in townships 1, 2 and 3 and is not contained by any well defined valley. This stream is the most important of any of those visited on this part of the trip, but no sufficient reconnaissance of it was made to allow of further discussion at this time.

Gauging Station on Sage Creek, near Wild Horse, R.N.W.M.P.

Milk River, Alberta. Daily discharge sheet for July, 1909.

July. — Day of Month.	North Branch. Peters Ranche. 13-1-23-4.		North Branch. Knights Ranche. 13-2-21-4.		North Branch. Mackies Ranche. 19-2-18-4.		Combined North and South Branch Mackies Ranche. 23-2-18-4.		Milk River Station. 28-2-16-4.		Writing on Stone. 35-1-13-4.		Pendant d'Oreille. 16-2-8-4.		Spencers Lower Ranche. 3-1-5-4.	
	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.
1									2.	289						
2									1.93	258						
3									1.86	248						
4									1.85	246.6						
5									1.89	256						
6									1.90	260						
7									1.98	282						
8					2.52	110		411	2.43	428						
9					2.48	104		360	2.20	346						
10					2.44	98		318	1.95	274						
11					2.40	91		267	1.90	260						
12					2.36	85		226	1.82	238						
13					2.32	80		191	1.72	210						
14					2.28	75		165	1.70	204						
15					2.24	70		151	1.63	186						
16					2.23	69		147	1.60	178						
17			2.00	61.5	2.22	68		146	1.53	158						
18			2.00	61.5	2.21	67		142	1.50	150						
19			2.00	61.5	2.20	65		135	1.46	140						
20			2.00	61.5	2.20	65		133	1.41	125						
21	1.91	51	2.00	61.5	2.20	65		131	1.40	122						
22	1.90	50	2.00	61.5	2.20	65		131	1.40	122						
23	1.90	50	2.00	61.5	2.20	65		130	1.40	122						
24	1.82	42.5	2.00	61.5	2.20	65		130	1.33	104						
25	1.93	53	2.00	61.5	2.20	65		132	1.30	96						
26	2.70	177	2.06	68.5	2.20	65		137	1.44	133						
27	3.90	591	2.82	196	3.10	236		388	1.80	232						
28	3.90	591	3.44	398	4.00	559		1,487	3.30	800						
29	2.40	118	2.76	181	3.24	282		1,602	4.24	1,344						
30	2.25	94	2.30	96	3.20	268		1,528	3.72	1,000						
31	2.10	87	2.20	82	3.00	209		1,285	2.44	464						
Total		1,904.5		1,575.0		2,991.0		9,873.0		9,275.6						
Mean		173.14		105.0		124.6		411.37		299.21						

Milk River, Alberta. Daily discharge sheet for August, 1919.

August. — Day of Month.	North Branch. Peters Ranche. 13-1-23-4.		North Branch. Knights Ranche. 13-2-21-4.		North Branch. Mackies Ranche. 19-2-18-4.		Combined North and South Branch Mackies Ranche. 23-2-18-4.		Milk River Station. 28-2-16-4.		Writing on Stone. 35-1-13-4.		Pendant d'Oreille. 16-2-8-4.		Spencers Lower Ranche 3-1-5-4.	
	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.
1	2.0	62	2.20	82	2.88	190	.....	903	2.18	370	.....	.....	.....	.....	.....	.....
2	2.0	62	2.20	82	2.76	155	.....	437	1.96	294	2.62	347	.....	.....	.....	.....
3	2.0	62	2.20	82	2.64	131	.....	283	1.82	250	2.44	300	.....	.....	.....	.....
4	2.0	62	2.20	82	2.52	110	.....	206	1.73	222	2.33	271	.....	.....	.....	.....
5	1.95	56	2.19	80	2.40	91	.....	171	1.63	192	2.23	245	3.02	249	.....	.....
6	1.95	56	2.15	75	2.28	75	.....	141	1.52	160	2.15	223	2.96	214	.....	.....
7	1.95	56	2.00	57.5	2.16	60	.....	134	1.50	152	2.11	213	2.90	190	.....	.....
8	1.95	56	2.00	57.5	2.08	52	.....	128	1.50	152	2.08	204	2.84	170	.....	.....
9	1.95	56	2.00	57.5	2.08	52	.....	121	1.50	152	2.04	194	2.81	163	2.88	194
10	1.95	56	2.00	57.5	2.08	52	.....	116	1.50	152	2.00	183	2.79	156	2.84	185
11	1.95	56	2.00	57.5	2.08	52	.....	113	1.46	140	1.96	170	2.75	146	2.80	176
12	1.95	56	2.00	57.5	2.08	52	.....	110	1.41	126	1.88	150	2.74	144	2.76	167
13	1.95	56	2.00	57.5	2.08	52	.....	106	1.40	122	1.91	159	2.73	141	2.72	159
14	1.95	56	2.00	57.5	2.08	52	.....	106	1.36	112	1.80	129	2.72	139	2.68	150
15	1.90	50	2.00	57.5	2.08	52	.....	98	1.31	98	1.78	122	2.63	121	2.64	141
16	1.90	50	2.00	57.5	2.08	52	.....	96	1.30	96	1.75	115	2.56	108	2.60	135
17	1.95	56	2.00	57.5	2.08	52	.....	96	1.30	96	1.73	110	2.54	105	2.56	124
18	1.95	56	2.00	57.5	2.08	52	.....	91	1.30	96	1.71	105	2.52	102	2.52	116
19	1.95	56	2.00	57.5	2.08	52	.....	90	1.30	96	1.69	99	2.50	100	2.48	108
20	1.95	56	2.00	57.5	2.08	52	.....	90	1.26	86	1.67	95	2.44	91	2.44	100
21	1.92	52	2.00	57.5	2.08	52	.....	90	1.25	83	1.65	90	2.44	91	2.40	93
22	1.90	50	2.00	57.5	2.08	52	.....	90	1.25	83	1.64	87	2.44	91	2.51	114
23	1.85	46	1.90	47	2.00	45	.....	83	1.21	76	1.63	84.6	2.43	90.5	2.63	139
24	1.85	46	1.90	47	2.00	45	.....	79	1.20	72	1.62	83	2.38	84	2.61	135
25	1.85	46	1.90	47	2.00	45	.....	79	1.20	72	1.62	83	2.38	84	2.58	128
26	1.85	46	1.90	47	2.00	45	.....	79	1.20	72	1.61	81	2.38	84	2.55	122
27	1.85	46	1.90	47	2.00	45	.....	79	1.20	72	1.60	80	2.36	82	2.52	116
28	1.85	46	1.90	47	2.00	45	.....	79	1.20	72	1.61	81	2.35	81	2.49	110
29	1.85	46	1.90	47	2.00	45	.....	77	1.20	72	1.60	80	2.37	83	2.47	106

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Milk River, Alberta. Daily discharge sheet for September, 1909.

September. — Day of Month.	North Branch. Peters Ranche. 13-1-23-4.		North Branch. Knights Ranche. 13-2-21-4.		North Branch. Mackies Ranche. 19-2-18-4.		Combined North and South Branch Mackies Ranche. 23-2-18-4.		Milk River Station. 28-2-16-4.		Writing on Stone. 35-1-13-4.		Pendant d'Oreille. 16-2-8-4.		Spencers Lower Ranche. 3-1-5-4.	
	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.
1	1.85	46	1.90	47	2.00	45	.....	79	1.25	83	1.62	83	2.39	85.5	2.39	91
2	1.85	46	1.90	47	2.00	45	.....	79	1.25	83	1.63	84.6	2.39	85.5	2.36	86
3	1.85	46	1.90	47	2.00	45	.....	79	1.25	83	1.63	84.6	2.38	84	2.33	81
4	1.85	46	1.90	47	2.00	45	.....	79	1.25	83	1.63	84.6	2.37	83	2.30	76
5	1.85	46	1.90	47	2.00	45	.....	83	1.25	83	1.63	84.6	2.38	84	2.30	76
6	1.85	46	1.80	38.5	2.00	45	.....	83	1.25	83	1.63	84.6	2.39	85.5	2.30	76
7	1.85	46	1.80	38.5	2.00	45	.....	83	1.25	83	1.65	89.4	2.38	84	2.30	76
8	1.85	46	1.80	38.5	2.00	45	.....	83	1.21	76	1.66	91	2.37	83	2.30	76
9	1.85	46	1.80	38.5	2.00	45	.....	83	1.16	65	1.64	85	2.38	81	2.30	76
10	1.85	46	1.80	38.5	2.00	45	.....	83	1.11	58	1.62	78.6	2.38	78	2.30	76
11	1.85	46	1.80	38.5	2.00	45	.....	83	1.10	56	1.59	70	2.38	76	2.30	76
12	1.85	46	1.80	38.5	2.00	45	.....	83	1.10	56	1.59	69	2.39	74	2.30	76
13	1.85	46	1.80	38.5	2.00	45	.....	83	1.17	66	1.61	73.4	2.38	70	2.32	79.5
14	1.85	46	1.80	38.5	2.00	45	.....	83	1.24	82	1.62	75.2	2.38	67	2.34	82
15	1.85	46	1.80	38.5	2.00	45	.....	83	1.29	93	1.64	79.8	2.40	66	2.27	71
16	1.85	50	1.80	42	2.00	45	.....	83	1.20	96	1.65	81.8	2.44	69	2.20	60
17	1.85	50	1.80	42	2.00	45	.....	83	1.26	86	1.67	86.4	2.48	71.7	2.19	58.6
18	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.67	85.4	2.52	75	2.23	65
19	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.66	82	2.50	75	2.30	76
20	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.66	81.8	2.49	72.5	2.30	76
21	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.66	80.2	2.46	70	2.30	76
22	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.66	79.4	2.46	70	2.25	67
23	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.66	78.4	2.47	71	2.25	67
24	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.69	85.8	2.49	72.5	2.27	71
25	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.69	85.0	2.50	73	2.27*	71
26	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.68	81.4	2.50	73	2.06†	75.5
27	1.85	50	1.80	42	2.00	45	.....	83	1.25	83	1.68	80.6	2.51	74	2.06	75.5
28	1.85	50	1.80	42	2.00	45	.....	83	1.21	76	1.68	79.8	2.50	73	2.04	73

29.....	1.85	50	1.80	42	2.00	45	.....	83	1.20	72	1.67	76.2	2.49	72.5	1.88	60
30.....	1.85	50	1.80	42	2.00	45	.....	83	1.16	65	1.67	75.4	2.48	71.5	1.87	59.5
Total.....	.....	1,440	.....	1,250	.....	1,350	.....	2,474	.....	2,358	.....	2,437	.....	2,268.2	.....	2,205.6
Mean.....	.....	48	.....	41.66	.....	45	.....	82.46	.....	78	.....	81.23	.....	75.6	.....	73.5
Diff.....	.....	.....	−6.4	.....	+3.4	.....	+37.4	.....	−4.4	.....	+3.2	.....	−5.6	.....	−2.1	.....

*Upper gauge heights. †Lower gauge heights.

Milk River, Alberta. Daily discharge sheet for October, 1909.

October. Day of Month.	North Branch. Peters Ranche. 13-1-23-4.		Knights Ranche. 13-2-21-4.		Mackies Ranche. 19-2-18-4.		Combined North and South Branch Mackies Ranche. 23-2-18-4.		Milk River Station. 28-2-16-4.		Writing on Stone. 35-1-13-4.		Pendant d'Oreille. 16-2-8-4.		Spencers Lower Ranche. 3-1-5-4.	
	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.
1	1.85	50	1.90	51.5	2.11	55	.....	91	1.15	64	1.66	72	2.47	71	1.86	59
2	1.85	50	1.90	51.5	2.11	55	.....	87	1.10	56	1.66	73	2.47	71.2	1.87	59.5
3	1.85	50	1.90	51.5	2.11	55	.....	87	1.10	56	1.66	73	2.47	71.4	1.87	59.5
4	1.85	50	1.90	51.5	2.11	55	.....	86	1.10	56	1.67	74.5	2.48	73.3	1.87	59.5
5	1.85	50	1.90	51.5	2.11	55	.....	86	1.10	56	1.67	74.5	2.50	77	1.90	62
6	1.85	50	1.90	51.5	2.11	55	.....	86	1.10	56	1.66	73	2.50	77.2	1.88	60
7	1.85	50	1.90	51.5	2.11	55	.....	86	1.14	62	1.65	71.5	2.50	77.4	1.89	61
8	1.85	50	1.90	51.5	2.11	55	.....	86.5	1.15	63	1.65	71.5	2.50	77.8	1.94	64.5
9	1.85	50	1.90	51.5	2.11	55	.....	86.5	1.15	63	1.65	71.5	2.51	79	1.94	64.5
10	1.85	50	1.90	51.5	2.11	55	.....	87	1.19	70	1.66	73.0	2.50	79	1.94	64.5
11	1.85	50	1.90	51.5	2.11	55	.....	87	1.20	72	1.67	74.5	2.51	79.4	2.08	77
12	1.85	50	1.90	51.5	2.11	55	.....	87.5	1.20	72	1.67	74.5	2.52	82.9	2.07	76
13	1.85	50	1.90	51.5	2.11	55	.....	87.5	1.20	72	1.67	74.5	2.53	84.8	2.06	75.5
14	1.85	50	1.90	51.5	2.11	55	.....	88	1.25	82	1.67	74.5	2.51	82	1.94	64.5
15	1.85	50	1.90	51.5	2.11	55	.....	88	1.25	80	1.68	78.0	2.52	83.9	1.94	64.5
16	1.85	50	1.90	51.5	2.11	55	.....	89	1.25	80	1.69	80.0	2.54	87.6	2.02	71.5
17	1.85	50	1.90	51.5	2.11	55	.....	89	1.25	80	1.69	80	2.54	87.7	2.02	71.5
18	1.85	50	1.90	51.5	2.11	55	.....	90	1.25	80	1.68	78	2.54	88.1	2.12	80
19	1.85	50	1.90	51.5	2.11	55	.....	90	1.25	80	1.65	71.5	2.54	88.5	2.12	80
20	1.85	50	1.90	51.5	2.11	55	.....	91	1.25	80	1.62	67	2.54	88.9	2.12	80
21	1.85	50	1.90	51.5	2.11	55	.....	91	1.25	77	1.69	80	2.54	89.2	2.12	80
22	1.85	50	1.90	51.5	2.11	55	.....	92	1.25	77	1.70	82.5	2.55	91	2.12	80
23	1.85	50	1.90	51.5	2.11	55	.....	92	1.29	87	1.70	82.5	2.55	91.4	2.14	81.5
24	1.85	50	1.90	51.5	2.11	55	.....	92.7	1.30	89	1.70	82.5	2.56	93	2.16	83
25	1.85	50	1.90	51.5	2.11	55	.....	92.7	1.26	79	1.71	85.4	2.56	93.8	2.18	85
26	1.85	50	1.90	51.5	2.11	55	.....	93.4	1.25	73	1.70	82.5	2.56	94.1	2.18	85
27	1.85	50	1.90	51.5	2.11	55	.....	93.4	1.25	73	1.70	82.5	2.55	93	2.18	85
28	1.85	50	1.90	51.5	2.11	55	.....	93.4	1.25	73	1.70	82.5	2.54	92	2.18	85
29	1.85	50	1.90	51.5	2.1	55	.....	93.4	1.25	73	1.71	85.4	2.54	92.4	2.18	85

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30	1.85	50	1.90	51.5	2.11	55	.....	93.4	1.25	73	1.72	88	2.54	92.7	2.19	85.5														
31	1.85	50	1.90	51.5	2.11	55	.....	93.4	1.25	73	1.74	94	2.53	91.7	2.18	85.5														
Total	.....	1,550	.....	1,596.5	.....	1,705	.....	2,776.8	.....	2,224	.....	2,407.8	.....	2,624.4	.....	2275														
Mean	.....	50	.....	51.5	.....	55	.....	89.57	.....	71.74	.....	77.64	.....	84.6	.....	73.39														
Diff	.....	.....	+1.5	.....	+3.5	.....	+34.57	.....	=17.83	.....	+5.9	.....	+6.1	.....	−11.3	.....														

Milk River, Alberta. Daily discharge sheet for November, 1909.

November. — Day of Month.	North Branch. Peters Ranche. 13-1-23-4.		North Branch. Knights Ranche. 13-2-21-4.		North Branch. Mackies Ranche. 19-2-18-4.		Combined North and South Branch Mackies Ranche. 23-2-18-4.		Milk River Station. 28-2-16-4.		Writing on Stone. 35-1-13-4.		Pendant d'Oreille. 16-2-8-4.		Spencers Lower Ranche. 3-1-5-4.	
	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.	G.H.	Disch.
1	1.85	50	1.90	43	2.15	60	.....	.....	1.25	70	1.73	90.2	2.52	90.6	2.19	85.5
2	1.85	50	1.90	43	2.15	60	.....	.....	1.25	70	1.73	90.2	2.52	91	2.20	86.5
3	1.85	50	1.90	43	2.15	60	.....	.....	1.25	70	1.73	90.2	2.51	89.8	2.18	85
4	1.85	50	1.90	43	2.15	60	.....	.....	1.25	70	1.73	90.2	2.52	91.6	2.18	85
5	1.85	50	1.90	43	2.15	60	.....	.....	1.25	67	1.73	90.2	2.53	93.6	2.16	83
6	1.85	50	1.90	43	2.15	60	.....	.....	1.29	77	1.73	90.2	2.51	90.6	2.18	85
7	1.85	50	1.90	43	2.15	60	.....	.....	1.30	80	1.77	100	2.46	84	2.16	83
8	1.85	50	1.90	43	2.15	60	.....	.....	1.30	80	1.89	132	2.69	119	2.18	85
9	1.85	50	1.90	43	2.15	60	.....	.....	1.40	108	1.88	130	2.70	120	2.20	86.5
10	1.85	50	1.90	43	2.15	60	.....	.....	1.40	108	1.88	130	2.69	119	2.18	85
11	1.85	50	2.00	53.6	2.15	60	.....	.....	1.40	108	1.86	124	2.70	120	2.16	83
12	1.85	50	2.00	53.6	.....	.....	.....	.....	1.60	166	1.85	122	2.72	124	.....	.....
13	1.90	54	2.00	53.6	.....	.....	.....	.....	1.60	166	1.84	119	2.72	124	.....	.....
14	1.90	54	2.00	53.6	.....	.....	.....	.....	1.60	166	.....	.....	2.75	130	.....	.....
15	1.90	54	2.00	53.6	.....	.....	.....	.....	1.60	166	.....	.....	2.68	117	.....	.....
16	1.90	54	2.00	53.6	.....	.....	.....	.....	1.60	166	.....	.....	2.60	103	.....	.....
17	1.90	54	2.00	53.6	.....	.....	.....	.....	1.60	166	.....	.....	2.64	110	.....	.....
18	1.90	54	2.00	53.6	.....	.....	.....	.....	1.69	190	.....	.....	2.66	113	.....	.....
19	1.90	54	2.00	53.6	.....	.....	.....	.....	1.70	194	.....	.....	2.74	129	.....	.....
20	1.90	54	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	2.78	138	.....	.....
21	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	.....	.....	2.00	53.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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TABLE A.

List of permanent stations established on the Milk River, Alberta, 1909. With Controlling elements.

and location.	Distance from last station.	Type of station.	Height of supports.	Span of cable.	Banks liable to overflow at flood.	Fall from last station.	Average fall per mile.
	Miles. (From Internat. bound'y.)		Feet.	Feet.		Feet. (From Internat. bound'y.)	Feet.
Peters Ranche	.....	Cable car equipment, low water measuring wire.	R=10.0	140	Yes.	.....	15.91
13-1-23-4	4.33		L=10.0	.....	.....	68.90	.....
Knights Ranche	.....		R=0.0	179	Yes.	250.07	16.40
13-2-21-4	15.25		L=14.0	.....	.....	.....	.....
Mackies Ranche, North Br'h	.....		R=14.0	150	Yes.	289.36	14.72
19-2-18-4	19.64		L=14.0	.....	.....	.....	.....
Mackies Ranche, South Br'h	.....		R=16.0	200	Yes.	.....	.....
31-1-18-4	.....		L=12.5	.....	.....	.....	.....
Milk River	.....	Bridge station.	.....	.....	Yes.	152.35	7.07
28-2-16-4	21.52		.....	.....	.....	.....	.....
Writing-on-stone	.....	Cable car equipment, low water measuring wire.	R=18.2	250	Yes.	424.08	10.69
35-1-13-4	39.64		L=19-6	.....	.....	.....	.....
Pendant d'Oreille	.....		R=23	290	Yes.	146.14	3.66
16-2-8-4	39.86		L=17	.....	.....	.....	.....
Spencers Lower Ranche	.....		R=20	350	Yes.	125.57	3.73
3-1-5-4	33.66		L=22	.....	.....	.....	.....
To Eastern Crossing	5.08	.....	.....	.....	.....	15.64	3.08
Totals	178.98	.....	.....	.....	.....	1,472.11	.....

Note.—The distances along the river are measured along the courses of the traverse by L. E. Fontaine, D.L.S.

South Branch.—From International Boundary to the junction with the North Branch: distance, 20.02 miles Fall=293.76. Average fall per mile=14.67 feet.

General view of Permanent Station at Mackie's Ranche on the North Branch.

TABLE B.

STUDY of conditions of run-off-watershed of the Milk River from its head waters to its eastern crossing from Canada: Sec. 3 1-5-W. of IV. For the period August 8 to October 31, 1909.

Station.	Area of Watershed—Square miles.						Run-off—Ac. ft.		Run-off per sq. mile. ac.-ft.	
	Additional to last station.			Total for station.			Additional to last station.	Total for station.	For additional area.	For total area.
	Canada.	U.S.A.	Total.	Canada.	U.S.A.	Total.				
Peters Ranche, 13-1-23-4	.....	.....	.....	18	91	109	.....	8,305	.....	76.19
Knights Ranche, 13-2-21-4	124	6	130	142	97	239	226	8,079	0.00	33.80
Mackies Ranche, North Branch, 19-2-18-4	196	0	196	338	97	435	+226	8,305	1.15	19.30
Junction, North and South Branch, 23-2-18-4	68	390	458	406	487	893	+6,312	14,617	13.78	16.37
Milk River, 28-2-16-4	182	2	184	588	489	1,077	+1,168	13,449	0.00	12.48
Writing on Stone, 35-1-13-4	414	129	543	1,002	618	1,620	+1,207	14,656	2.22	9.04
Pendant d'Oreille, 16-2-8-4	397	158	555	1,399	776	2,175	+91	14,565	0.00	6.69
Spencers Lower Ranche, 3-1-5-4	246	27	273	1,645	803	2,448	+291	14,856	1.07	6.06

TABLE C.

MILK River, Alberta. Study of conditions of flow showing the estimated capacity of the river channel with banks full.

Name and Location.	Distance from last station.	Average fall per mile.	Banks running full.						Character of river channel.
			Elements of X section.				Estimated.		
			Area.	R.	S.	C.	V.	Discharge.	
	Miles. (From International bound'y.)	Feet.	Sq. ft.				F.S.		
Peters Ranche, 13–1–23–4	4.33	15.91	246	4.577	.00301	51	6.069	1,434	Soft material liable to erosion. Clay-sand and sandy loam with outcrops of gumbo in spots.
Knights Ranche, 13–2–21–4	15.25	16.40	145	2.496	.00310	42	3.691	536	
Mackies Ranche, North Branch, 19–2–18–4	19.64	14.72	297	4.132	.00279	48	5.15	1,532	
Milk River, 28–2–16–4	21.52	7.07	515	3.636	.00134	47	3.280	1,690*	
Writing on Stone, 35–1–13–4	39.64	10.69	602	4.346	.00202	49	4.586	2,763	
Pendant d'Oreille, 16–2–8–4	39.86	3.66	1,456	7.142	.00069	54	3.791	5,519	
Spencers Lower Ranche, 3–1–5–4	33.66	3.73	1,700	5.71	.000706	53	3.360	5,712	

*Actual discharge measurement.

Method used in estimating Discharges.

Argument V = C.A.R.S.
"S" was derived from the average fall between stations.
Assuming "S" as above the value "N" = 0.40 was found to give correct results at Milk River, in comparison with actual measurements.
This value "N" = 0.40 was assumed for all stations.
The value of "C" was taken from tables in Trautwine's Engineer's Pocket Book.

TABLE E.

TIMBER and Iron bill.—Proposed structure for establishing permanent section station, Spencer's lower ranch.

Description.	——	Timber.			Iron.			
		B.M.	B. M.	Amount.	Iron spikes.	Weight.	Per lb.	Amount.
	Inches.		$ M.	$	Inches.	Lbs.	Cts.	$
Main flooring	3x9	4,080	28	.....	.....	.....	.....	.....
Slope flooring	"	1,632	28	.....	6x½	326	5	16 30
Apron flooring	"	1,326	28	.....	7x½	930	5	46 50
Add for waste	"	306	28	.....	7x½	9	5	0 45
Centre wall	"	162	28	210 17	6x½	10	5	0 50
East end horizontal lining	1x12	140	25	.....	Wire nails.	5	5	0 25
West end horizontal lining	"	44	25	4 60	2½	.....	.....	.....
Sheet piling, double row along back	2x6	8,304	24	.....	Round.	.....	.....	.....
Sheet piling, east end, single row	"	448	24	.....	Wire.	.....	.....	.....
Sheet piling, east wing wall, single row	"	196	24	.....	6	.....	.....	.....
Sheet piling, west end, single row	"	320	24	.....	Spikes.	90	5	4 50
Add for waste	6x6	240	24	228 19	.....	10	5	0 50
Stringers for flooring	"	1,728	27	36 65	Drift bolts, round iron.			
" "	6x8	576	28	16 13	¾x18	323	5	16 15
Add for waste	6x6	192	27	.....	¾x18	22	5	1 10
Capping east end	"	150	27	.....	¾x18	53	5	2 65
Capping west end	"	84	27	11 50	¾x18	33	5	1 65
Piling—flooring	"	5,220	26	.....	.....	.....	.....	.....
" east buttress	"	1,008	26	161 93	.....	.....	.....	.....
" east brace piles	"	270	29	.....	.....	.....	.....	.....
" west buttress	"	450	29	20 88	.....	.....	.....	.....
Add for waste	"	360	26	9 36	.....	.....	.....	.....
Bracing east buttress	3x9	156	28	4 37	Spikes. 7x½	18	5	90
	.....	27,392	.....	703 78	.....	1,829	.....	91 45

TABLE D.

ESTIMATE of cost of proposed structure for establishing permanent section station at Spencer's lower ranche, Milk River, Alberta.

	$ c.
Timber—27,392 ft. b.m. delivered at Milk River station.....	703 78
Iron—1,829 lbs. delivered at Milk River station.....	91 45
Transportation—from Milk River station to Spencer's lower ranche (Table F.).....	720 00
Labour—Cost of labour (Table F.).....	1,324 00
Pile driver—Cost of, built on ground, 70 lb. hammer.....	100 00
Tools—cost of.....	100 00
Rip-rap—"one man stone" 668 sq. ft. Cost covered by expenses of team and driver.....	.....
	3,039 23
Exigencies—add for, 10 p.c.....	303 92
	3,343 15

TABLE F.

ESTIMATE SHEET—COST OF LABOUR.

	Per month. $
1 foreman.....	100
1 carpenter.....	75
3 labourers.....	150
1 teamster.....	50
1 cook.....	50
	$ 425

Time required: 2½ months.

Cost of labour.....	$ 1,062
Food for 7 men for 75 days at 50c. per day, per man.....	262
Total cost of labour.....	$ 1,324

It is assumed that the camp equipment, including team and wagon, will be supplied from the hydrographic surveys stores.

Transportation of Material to Spencer's Lower Ranche, from Milk River.

27,400 ft. b.m. taking 1,200 ft. b.m. per team load = 23 trips. 1,829 lb. iron = 1 trip. Total 24 trips. Each trip takes 6 days = 144 days. Team and driver at $5 per day.....	$720

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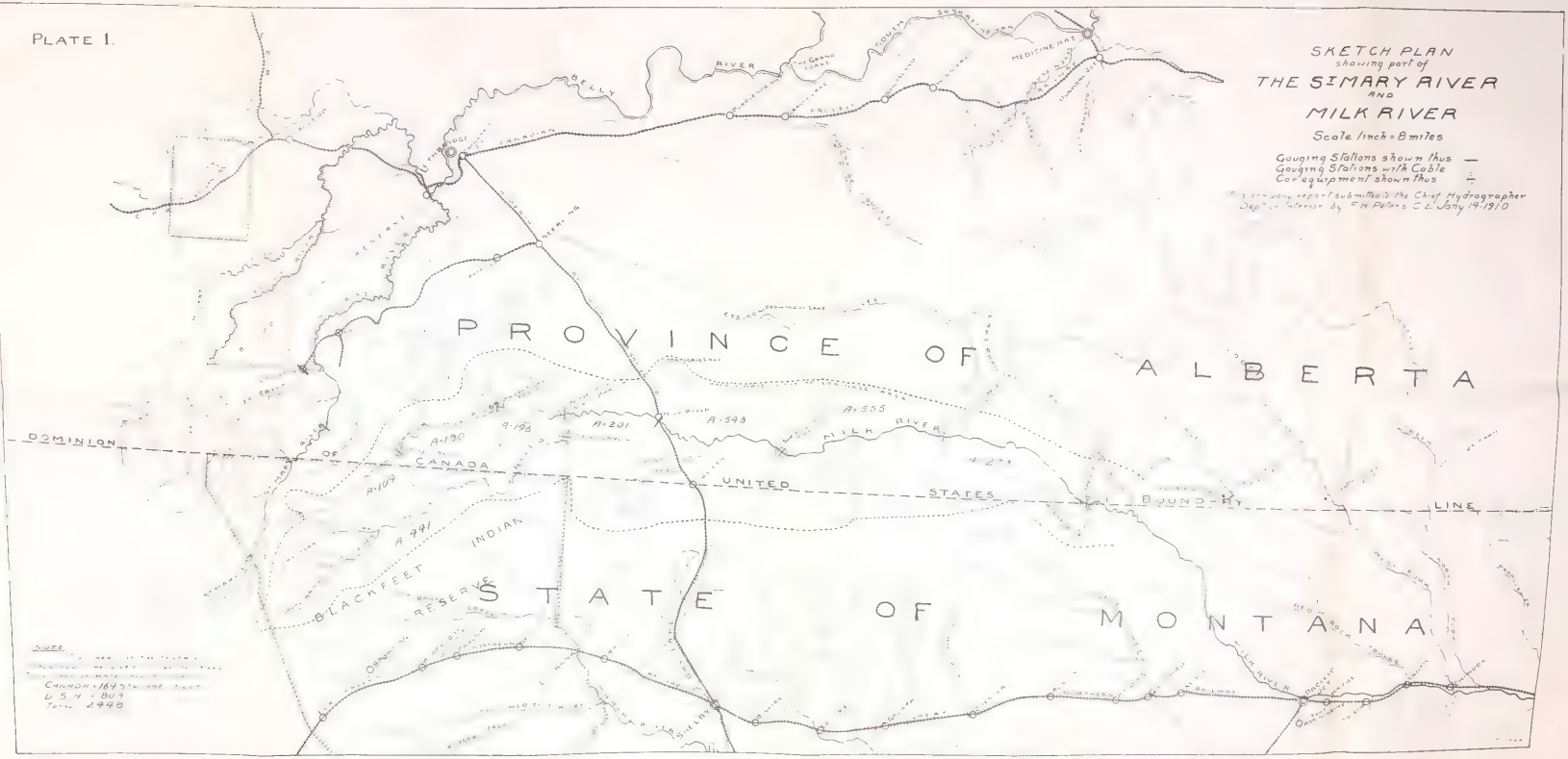
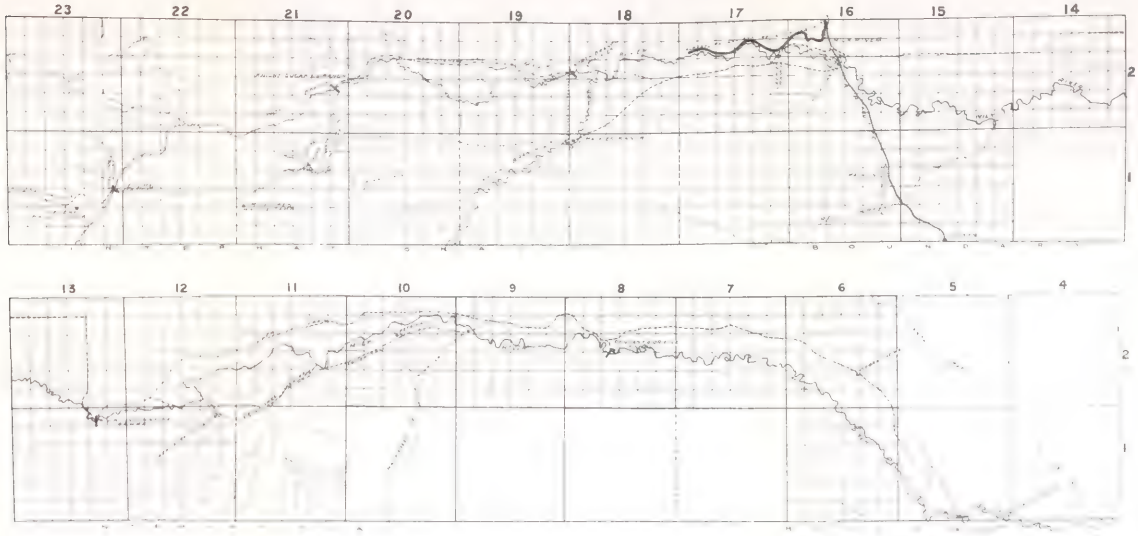

SKETCH PLAN
showing part of
THE ST MARY RIVER
AND
MILK RIVER
Scale 1 inch = 8 miles
Gauging Stations shown thus —
Gauging Stations with Cable
Car equipment shown thus ÷
This sketch was reported submitted to the Chief Hydrographer
Dept of Interior by C.H. Peters C.E. July 19. 1910
PROVINCE OF ALBERTA
DOMINION OF CANADA
UNITED STATES
BOUNDARY LINE
STATE OF MONTANA
BLACKFEET INDIAN RESERVE
MILK RIVER
ST MARY RIVER
BELLY RIVER
LETHBRIDGE
MEDICINE HAT
A-130
A-201
A-393
A-505
A-109
A-741
NOTE
Canada 164 7/8 sq miles
U.S. 1803
Total 2449

PLATE 2.



SKETCH PLAN of MILK RIVER ALBERTA

Showing the Trails used by the Hydrographers Between the Several Gauging Stations

Trails well beaten and used

Trails well beaten, little used

Trails not well beaten, little used

Accompanying Report dated to the Chief Hydrographer Department of the Interior by E. Deville, 1st July 1909

TABLE OF DISTANCES BY TRAILS

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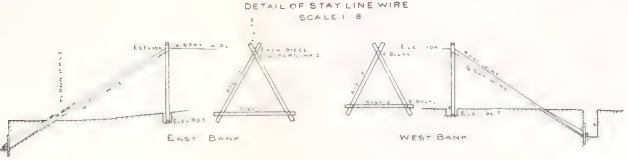
PLATE 3

MILK RIVER, ALBERTA
PLAN AND DETAILS OF CABLE CAR EQUIPMENT AT SPENCERS LOWER RANCH

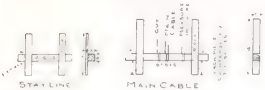
SE ¼ 3-1-5 WEST OF THE FOURTH MER

TO ACCOMPANY REPORT SUBMITTED TO THE CHIEF HYDROGRAPHER DEPT OF THE INTERIOR BY F H PETERS C E Jany 4 1909

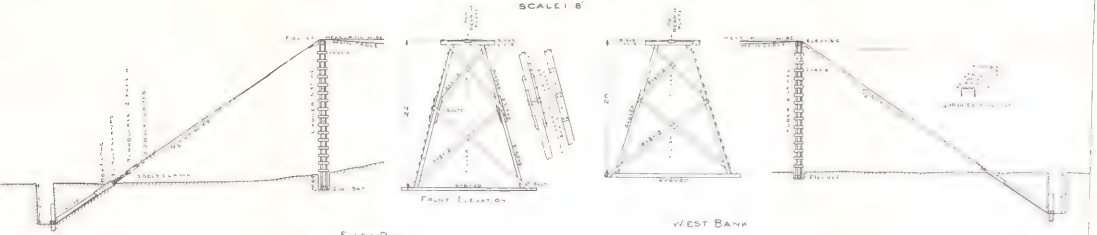
DETAIL OF STAY LINE WIRE
SCALE 1 8



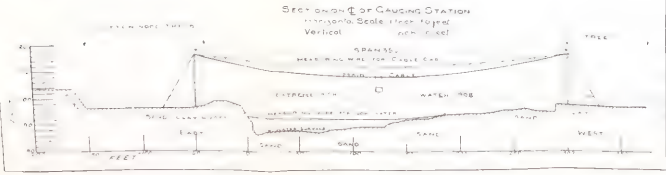
ENLARGEMENT OF DEADMEN
SCALE 1 4



DETAIL OF MAIN CABLE EQUIPMENT
SCALE 1 8



SECTION ℄ OF GAUGING STATION
Horizontal Scale 1 Inch = 1 Foot
Vertical same scale



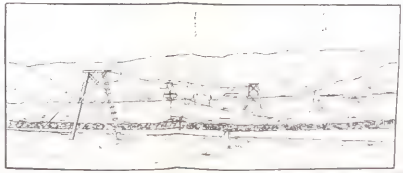
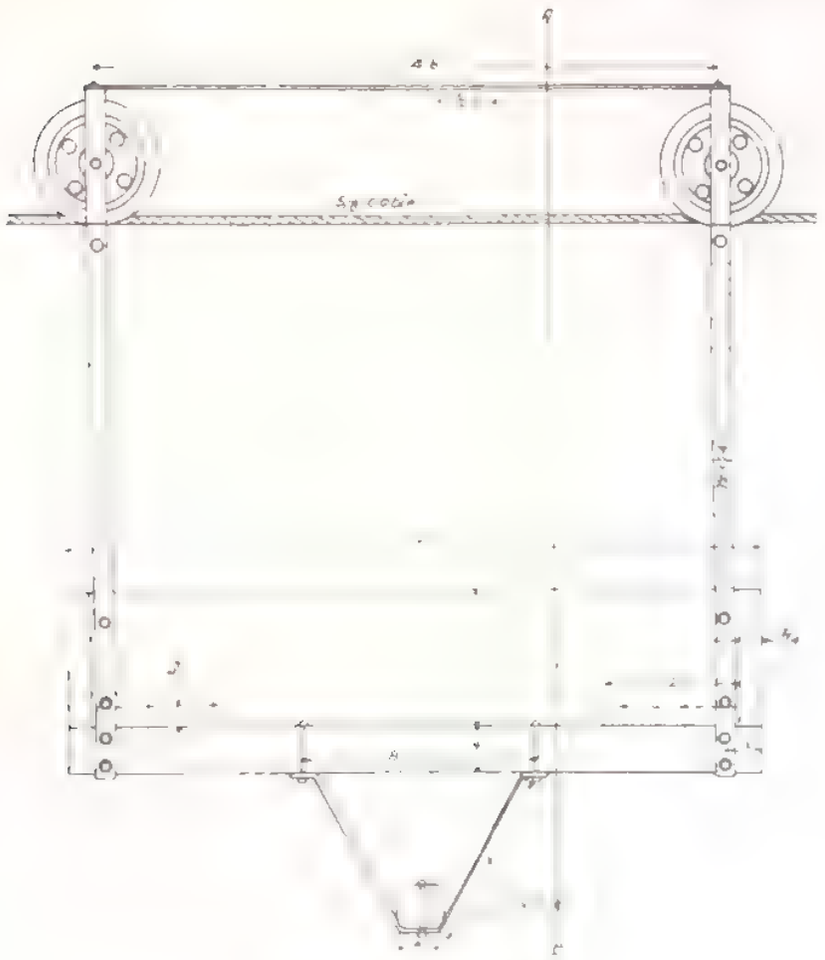


PLATE 4

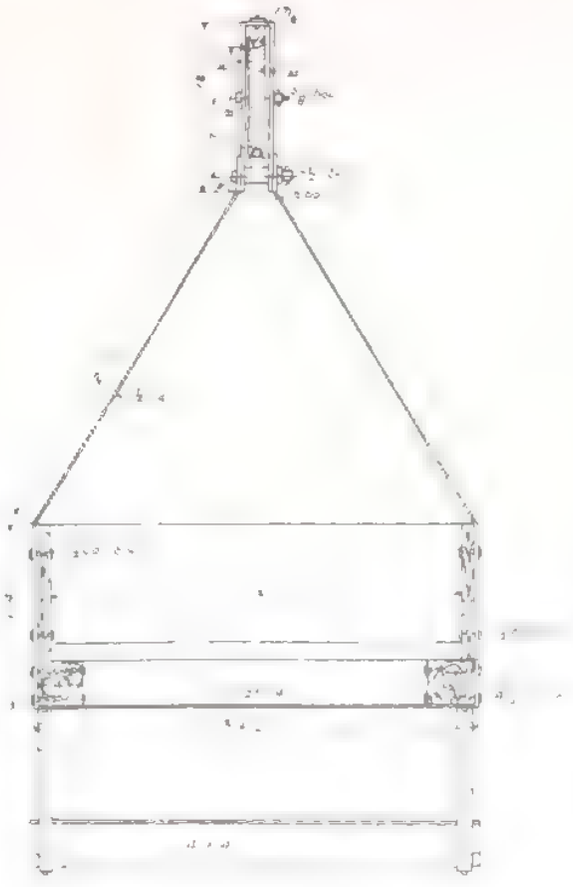
SIDE ELEVATION AND CROSS SECTION SHOWING DETAIL OF CABLE CAR

SCALE 1 INCH = 1 FOOT

TO ACCOMPANY REPORT SUBMITTED TO THE CHIEF HYDROGRAPHER DEPT OF INTERIOR BY FH PETERS CE Jany 14-1909



SIDE ELEVATION



SECTION THROUGH A B

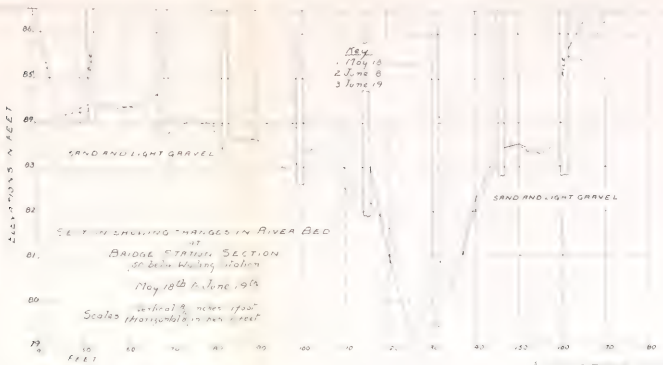
PLATE 5.

1909
MILK RIVER, ALBERTA

STUDY OF CONDITIONS OF RIVER CHANNEL AFFECTING DISCHARGE MEASUREMENTS AT MILK RIVER STATION

N.E. 21-2-16-W of 4th Meridian

To accompany report submitted to the Chief Hydrographer Dept of Interior by F.H. Peters & C.E. Jamy 4-1910.



SECTIONS SHOWING CHANGES IN RIVER BED AT BRIDGE STATION SECTION on below Walking Station

May 18th & June 19th

Vertical & Horizontal Scales 1 inch = 1 foot

Record of Soundings 1909

No	Date	Gage Height	Area	Mean Velocity	Gage Height	Discharge
1	May 18	3.72	62	1.93	3.70	119.78
2	June 8	3.51	57	1.70	3.49	[illegible]
3	" 19	4.41	110	2.42	[illegible]	[illegible]
4	July 3	3.32	100	1.80	3.30	180.15
5	" 19	2.94	131	2.265	2.92	296.98
6	" 24	4.12	1.280	3.9	4.10	11.1200
7	" 28	4.985	2.872	4.05	4.96	1205.88
8	" 29	5.08	3.280	4.65	5.06	[illegible]
9	" 30	184.65	2.149	4.35	9.[illegible]	[illegible]
10	" 31	258.69	2.985	2.69	5.54.91	[illegible]
11	Aug 26	7.32	28	2.5	82.735	
12	Oct 5	13.21	0.[illegible]	2.6	76.485	

STATION RATING CURVE

[illegible]

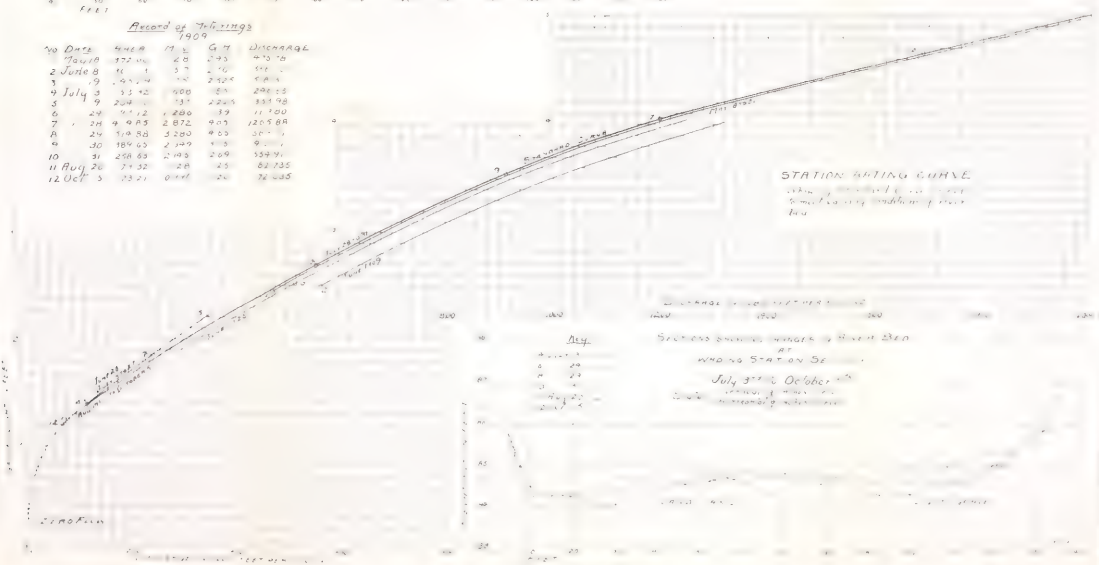
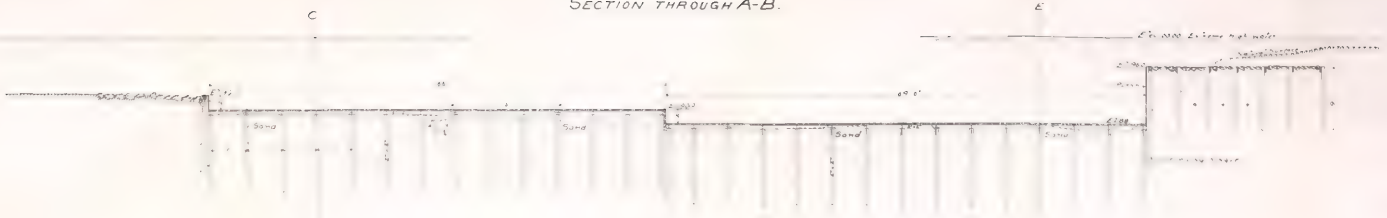


PLATE 6.

SECTION THROUGH A-B.



PLAN

FRONT ELEVATION
GROUND REMOVED

SECTION C.D

SECTION E.F

PLAN
OF
PROPOSED STRUCTURE
FOR ESTABLISHING
PERMANENT SECTION STATION
AT
SPENCER'S LOWER RANCH
MILK RIVER, ALBERTA
Scale 1 inch = 8 feet

RETURN

(136)

To an Order of the House of Commons, dated the 17th January 1910, showing the Foreign Exhibitions in which Canada has taken part since July, 1896, the time and place where such was held, the expenditure thereon by the Government of Canada, the persons, not common labourers, who had charge of the same or were employed thereat, the sums paid to such severally under the heads of (a) salary, (b) expenses, and the total cost to the country of each such Exhibition: also the amounts received as Revenue from the sale of articles or commodities, lumber, buildings and other materials, respectively. The whole statement to be made up in tabular form, and the additions of money column to be made.

CHAS. MURPHY,
Secretary of State.

Time.	Place.	Gross Expenditure.	Name.	Salary.	Expenses.	Net Cost.	Sales.			
							Articles or Commodities.	Lumber.	Buildings.	Other Materials.
		$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1897...	Stockholm..... ..	1,122 87	C. C. Eldridge.....	100 00	21 48	1,122 87				
1908.....	Edinburg, Scot.....	27,520 18	Wm. Hutchison.....	.....	83 63	27,052 85	....	.....	194 67	272 66
			L. E. Annis..... .	1,484 00	262 48					
			E. E. Cinq-Mars	.....	34 92					
			W. D. Dlaglish.....	.....	35 08					
			A. W. Despard	850 00	1,097 06					
			H. Hains.....	.....	70 12					
			T. H. Race	2,510 00	343 65					
			M. Turiff....	805 00	284 93					
		27,520 18		5,649 00	2,211 87	27,052 85	.....	.....	194 67	272 66
1905....	London, Eng.....	5,725 54	Jas. Brodie.....	250 00	604 42	2,130 56	.....	.....	. .. .	3,594 98
			W. H. Hay.....	245 00	208 78					
			J. Max..	275 00	26 37					
		5,725 54		770 00	839 57	2,130 56	.....	.....	....	3,594 98
Nov., 1906 to Apr.. 1907....	Christ Church, N.Z.	54,903 19	W. A. Burns.....	2,358 24	4,752 13	54,071 45	.....	....	.....	831 74
			S. Anderson	100 00	.....					
			R. L. Broadbent.....	....	2,364 10					
			A. W. Despard	575 00	795 00					
			E. Girardot.....	100 00						
			H. C. Knowlton.....	996 00	1,846 73					
			T. H. Race	3,360 00	920 47					
		54,903 19		7,489 24	10,678 43	54,071 45	.....	.....	.....	831 74

'08	Omaha, Miss..	7,733 96	W. H. Hay		58 73	7,733 96					
			H. C. Knowlton	492 41	1,600 94						
			J. McMonies	75 00							
		7,733 96		567 41	1,659 67	7,733 96					
1907	Melbourne, Austra..	762 48				665 15			97 33		
1905	Pittsburg, Pa	11,203 60	W. A. Burns	625 00	1,044 30	11,200 10				3 50	
			A. W. Despard	400 00	412 80						
			M. F. Goddard	222 58	256 36						
			W. H. Hay	500 00	362 50						
			H. C. Knowlton	250 00							
			T. H. Race	325 00	353 25						
		11,203 60		2,322 58	2,429 21	11,200 10				3 50	
05	Liverpool, Eng	3,243 95	W. H. Hay	250 00	365 61	3,243 95					
			J. Max	100 00	15 18						
			T. H. Race	280 00	438 44						
		3,243 95		630 00	819 23	3,243 95					
1900	Paris, France	344,547 56	A. H. Gilmour	3,124 97	234 75	316,337 39	6,073 51		10,641 43	11,495 23	
			F. Gourdeau		2,682 14						
			Jas. G. Jardine	6,079 90	4,253 89						
			J. X. Perrault	5,820 53	2,777 21						
			Wm. Saunders		608 44						
			W. D. Scott	4,755 19	4,178 62						
			P. H. Gilmour		1,093 43						
			A. M. Allan	851 50	407 52						
			D. J. Broderick	550 00	25 00						
			Lucien Bance		180 94						
			M. Barry	100 00	969 00						
			R. Barry	765 95	345 97						
			J. A. Bonneville	322 00							
			Hon. Thos. Ballantyne		644 75						
			Hon. Chas. Burpee	1,552 39	711 10						
			J. W. Comeau	1,343 27	822 55						
			L. A. Cusson	1,948 06	1,124 59						
			P. Cusson	300 00	18 20						
			B. M. Cosgrain	471 88	168 85						
			C. P. Choquette		762 59						
			A. Dupuis	2,216 04	2,366 45						
			R. Dandurand		1,420 00						
			J. N. Dandurand		1,114 09						

FOREIGN EXHIBITIONS—*Continued.*

Time.	Place.	Gross Expenditure.	Name.	Salary.	Expenses.	Net Cost.	Sales.			
							Articles or Commodities.	Lumber.	Buildings.	Other Materials.
		$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1900	Paris, France		John Edgar	341 61	3 28					
			F. De Martigny	433 29	11 58					
			E. R. Faribault		357 42					
			H. Galdbright	653 41	324 90					
			Robt. Hamilton	600 00	2,431 13					
			H. Hains		769 03					
			Andrew Halkett		1,426 93					
			W. H. Hay		1,144 31					
			Herbert Hogg	262 62	355 44					
			H. C. Knowlton	1,485 00	791 52					
			E. LeBoutillier	836 68	630 56					
			A. P. Low		789 46					
			J. A. Macoun	664 40	1,807 00					
			W. A. McKinnon	1,927 96	398 08					
			J. Marchand	758 76	77 20					
			J. C. H. Pelletier	414 00						
			Angus K. Stuart	1,517 02	224 90					
			Hon. J. I. Tarte		6,500 00					
			E. L. Turcotte		276 00					
			J. O. Turcotte	1,977 87	1,199 53					
			C. W. Willmott		769 16					
			R. C. Wilson	234 49						
		344,547 56		42,308 74	47,197 51	316,337 39	6,073 51		10,641 43	11,495 23
1901	Buffalo, N.Y.	70,651 29	Wm. Hutchison	3,387 02	3,047 45	67,058 83	470 00		1,895 83	1,226 63
			S. Anderson	140 10	219 55					
			W. A. Burns	880 38	1,226 75					
			B. M. Bayless	343 50	16 50					
			Eugene Bacon	190 00	2 00					
			Thos. Bradshaw	182 50	2 90					
			S. C. Brandon	238 04						
			G. H. Clemons	223 33	30 06					
			J. A. Couture		367 67					
			A. W. Despard	425 25						

1902 . . . Buffalo, N.Y.		Robt. Donaldson	137 50	16 55					
		D. T. Elderkin	663 19	39 65					
		E. B. Elderkin	1,725 00	3,427 95					
		M. Craig	400 00	62 75					
		Eug. Lemieux	775 00	50 35					
		Thos. Leary	221 25						
		Ronald Sager	105 00						
		G. O. Turcotte	423 50						
		E. Taynter	126 60						
	70,651 29		10,587 16	8,510 13	67,058 83	470 00	.....	1,895 83	1,226 63
1901 . . . . . Glasgow, Scotland	74,701 30	Hon. A. Boyer	.....	610 38	70,379 91	2,215 27	.....	.....	2,106 12
		J. G. Jardine	260 30	279 75					
		Jas. Brodie	1,902 00	239 47					
		John Edgar	1,232 00	86 94					
		Robt. Hamilton	1,926 00	408 79					
		W. H. Hay	200 00	596 17					
		M. G. Malcolm	249 42	454 85					
		C. H. Morrison	160 00						
		W. G. O'Brien	1,666 64	1,431 78					
		W. D. Scott	2,291 65	2,190 75					
		J. D. Stewart	1,446 00	159 44					
		Angus K. Stuart	1,902 00	103 09					
		G. W. Thomas	1,080 00	185 80					
	74,701 30		14,316 01	6,747 21	70,379 91	2,215 27	.....	.....	2,106 12
1902 . . . . Royal Exchange, London	7,534 14	Jas. Brodie	552 00	12 01	7,534 14	.....	.....	.....	.....
		John Edgar	177 00	6 29					
		W. D. Scott	208 33	286 31					
		Angus K. Stuart	534 00	5 51					
		Mary G. Malcolm	132 62	34 81					
	7,534 14		1,603 95	344 93	7,534 14	.....	.....	.....	.....
1902 . . . . . Wolverhampton and Cork	63,010 45	Alex. M. Allan	1,130 00	258 78	59,786 13	1,900 36	89 79	1,216 65	17 52
		Wm. Andrews	.....	36 50					
		Jas. Brodie	1,656 01	250 35					
		W. A. Burns	148 39	5 85					
		John Edgar	973 00	144 44					
		Robt. Hamilton	858 00	829 72					
		W. H. Hay	248 31	553 64					
		A. E. Homer	171 10	13 49					
		Wm. Hutchison	.....	5 85					

FOREIGN EXHIBITIONS.—*Continued.*

Time.	Place.	Gross Expenditure.	Name.	Salary.	Expenses.	Net Cost.	Sales.			
							Articles or Commodities.	Lumber.	Buildings.	Other Materials.
		$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1902.....	Wolverhampton and Cork.....	.....	M. J. Malcolm.....	238 46	181 64					
			J. H. Moore.....	243 35	.....					
			W. D. Scott.....	2,573 91	2,324 38					
			A. K. Stuart.....	146 00	329 00					
			E. H. Wartman.....	1,530 00	487 36					
			H. Yeigh.....	1,300 00	347 03					
		63,010 45		11,216 51	5,768 03	59,786 13	1,900 36	89 79	1,216 65	17 52
1903.....	Osaka, Japan.....	64,136 64	Wm. Hutchison.....	3,000 00	2,982 72	55,062 29	.....	450 00	100 00	8,524 35
			S. Anderson.....	720 00	1,497 80					
			W. A. Burns.....	1,425 00	3,253 37					
			Robt. Hamilton.....	1,452 00	915 06					
			W. H. Hay.....	875 00	1,251 20					
			W. Jamieson.....	1,100 00	1,287 27					
			H. C. Knowlton.....	717 50	1,228 32					
			G. Kamada.....	225 00	.....					
			H. S. Kuwagima.....	271 57	217 69					
			J. H. Labbe.....	105 00	.....					
			H. Nakagawa.....	90 00	19 53					
			C. E. Saunders.....	300 00	118 65					
			John Shearer.....	275 00	319 35					
			S. Tamira.....	561 11	545 75					
		64,136 64		11,117 18	13,636 71	55,062 29	.....	450 00	100 00	8,524 35
1904.....	St. Louis, Mo.....	$318,437 20	Wm. Hutchison.....	$5,500 00	$7,270 82	$313,842 56	.....	.....	$1,015 00	$3,579 64
			S. Anderson.....	1,500 00	1,379 30					
			W. A. Burns.....	2,525 00	5,177 25					
			Jas. Brodie.....	2,250 00	500 29					
			R. L. Broadbent.....	1,355 00	568 60					
			L. Burnett.....	1,414 00	46 70					
			W. J. Cavan.....	1,005 00	54 20					
			A. D. Dalglish.....	.....	28 80					

			L. M. Dick	251 35						
			G. R. Cotterille	742 00	102 55					
			A Dupuis	721 00	56 00					
			E. P. Eastman	1,277 00						
			E. B. Elderkin	742 00	158 00					
			E. Foster	1,005 00	54 20					
			M. J. Gillis	1,078 00	137 80					
			E. Girardot	1,281 00	40 25					
			M. F. Goddard	910 28	1,278 94					
			Robt. Hamilton	2,239 00	1,276 02					
			W. H. Hay	1,625 00	1,100 02					
			W. A. Jamieson	957 33	1,106 55					
			H. C. Knowlton	1,200 00	1,482 95					
			Louis Larive	900 00						
			H. P. Landry	1,661 00	50 92					
			H. B. Munro	1,442 00	142 55					
			T. H. Race	1,428 00	46 50					
			John Shearer, Jr	531 61	215 85					
			C. E. Saunders	493 55	386 76					
			S. Simpson	1,260 00						
			Angus K. Stuart	1,650 00	757 94					
			L. F. Taylor		1,174 25					
			C. Turpin	1,470 00	29 75					
			A. M. Thomson	252 00	11 00					
		$318,437 20		$40,666 12	24,634 76	$313,842 56			$1,015 00	$3,579 64
1905	Liege, Belgium	$174,804 70	Wm. Hutchison	$3,000 00	$9,590 24	$165,356 99				$9,447 71
			W. A. Burns	500 00	112 50					
			Jas. Brodie	1,750 00	4,417 91					
			S. Anderson	1,300 00	1,189 89					
			G. M. Bayley	3,898 73	308 83					
			R. L. Broadbent	1,485 00	276 88					
			J. O. Biliski	1,880 00	325 68					
			Jules Cambron	585 00	804 61					
			W. D. Dalglish	787 50	880 58					
			F L. Dery	819 35	1,577 18					
			A. W. Despard	340 18	505 98					
			H. B. Fitz-Simon	650 00	848 67					
			E. Girardot	1,250 00	1,893 14					
			H. Hains	955 00	1,621 86					
			Robt. Hamilton	875 00	804 64					
			W. H. Hay	625 00	835 83					
			W. A. Jamieson	418 67						
			H. C. Knowlton	123 00	34 52					
			K. J. Max	150 00	43 40					
			O. Pierson	575 72	816 10					
			F. H. Puttenham	531 61	145 07					

FOREIGN EXHIBITIONS—*Continued.*

Time.	Place.	Gross Expenditure.	Name.	Salary.	Expenses.	Net Cost.	Sales.			
							Articles or Commodities.	Lumber.	Buildings.	Other Materials.
		$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1905.....	Liege, Belgium.....	.....	A. Rivard.....	174 08						
			C. J. Simard.....	510 00	808 71					
			Geo. Strubbe.....	412 50	941 73					
		$174,804 70		$23,596 34	$28,783 95	$165,356 99	.....	.....	.....	$9,447 71
1906.....	Milan, Italy.....	132,841 87	Wm. Hutchison.....	3,000 00	3,972 37	129,369 13	.....	.....	3,472 74	
			S. Anderson.....	1,100 00	1,063 99					
			Jas. Brodie.....	1,474 96	3,881 11					
			R. Barry.....	425 00	687 25					
			R. L. Broadbent.....	.....	678 69					
			W. A. Burns.....	125 00						
			C. H. Catelli.....	1,890 00	435 95					
			J. W. Dafoe.....	790 00	342 25					
			W. D. Dalglish.....	675 00	1,065 91					
			A. W. Despard.....	375 00	706 23					
			H. B. Fitz-Simon.....	675 00	784 95					
			E. Girardot.....	1,200 00	1,981 05					
			H. Hains.....	862 50	1,975 90					
			H. C. Knowlton.....	120 00	97 30					
			C. Mariotti.....	1,155 00	339 54					
			F. H. Puttenham.....	24 33	71 90					
			R. Pine.....	675 78	270 22					
			J. O. Turcotte.....	1,306 50	127 42					
		132,841 87		15,874 07	18,482 03	129,369 13	.....	.....	3,472 74	
1907.....	Dublin, Ireland.....	142,458 95	Wm. Hutchison.....	3,000 00	6,185 98	139,152 03	.....	.....	1,796 83	1,510 09
			S. Anderson.....	800 00	1,224 40					
			W. A. Burns.....	141 66						
			Jas. Brodie.....	1,699 92	3,137 51					
			W. D. Dalglish.....	1,025 00	1,111 74					
			A. W. Despard.....	100 00						
			H. B. Fitz-Simon.....	990 00	1,050 37					
			E. Girardot.....	1,000 00	2,102 29					
			H. Hains.....	1,050 00	1,757 55					

			T. P. McHugh	1,236 00	213 06					
			J. J. O'Flaherty	1,816 00	236 29					
			R. R. Power	1,214 00	173 65					
			D. M. Quinn	1,824 00	203 80					
			J. O. Turcotte	1,860 00	188 42					
		142,458 95		17,756 58	17,585 06	139,152 03	.....	.....	1,796 83	1,510 09
1908	London, Eng	424,766 79	Wm. Hutchison	3,250 00	7,324 94	398,478 41	10,120 06	.....	9,733 33	6,335 05
			S. Anderson	1,300 00	1,390 72					
			W. F. Barnes	1,050 00	217 63					
			R. J. Barrett	9 3 00	1,102 75					
			Hon. A. Boyer	.....	1,826 84					
			Jas. Brodie	425 00	.....					
			W. A. Burnes	.....	204 50					
			E. E. Cinq Mars	574 00	236 41					
			W. D. Dalglish	1,440 00	1,644 24					
			A. W. Despard	300 00	298 43					
			R. Duchesnes	1,295 00	162 23					
			H. B. Fitz-Simon	1,221 00	1,373 66					
			E. Girardot	1,300 00	2,098 08					
			H. Haines	1,300 00	2,366 23					
			S. C. Lacroix	1,400 00	179 87					
			J. N. Lapierre	532 00	216 25					
			A. McLaughlin	845 00	100 75					
			A. Poulin	1,155 00	200 83					
			A. W. Tolmie	1,016 13	2,017 67					
			J. O. Turcotte	1,170 00	1,296 55					
			M. Turriff	.....	87 50					
		424,766 79		20,566 13	24,346 08	398,478 41	10,120 00	.....	9,733 33	6,335 05
1909	Seattle, Wash	94,810 68	Wm. Hutchison	2,500 00	5,117 25	88,003 57	5,868 45	.....	235 00	703 66
			S. Anderson	1,000 00	1,304 70					
			G. M. Bayly	880 00	576 65					
			W. D. Dalglish	805 00	1,304 40					
			A. W. Despard	1,134 00	885 75					
			E. Girardot	1,050 00	1,563 95					
			H. Hains	1,370 00	946 15					
			A. W. Tolmie	850 00	1,649 90					
			J. O. Turcotte	1,190 00	348 20					
			F. R. DeHart	468 60	462 40					
			J. C. MacIntosh	805 00	39 95					
		94,810 68		12,052 60	14,199 30	88,003 57	5,868 45	.....	235 00	703 66

FOREIGN EXHIBITIONS—*Concluded.*

Time.	Place.	Gross Expenditure.	Name.	Salary.	Expenses.	Net Cost.	Sales.			
							Articles or Commodities.	Lumber.	Buildings.	Other Materials.
		$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1910.....	Brussells, Bel.....	23,116 49	Wm. Hutchison.....	1,470 83	1,886 48	23,116 49				
			T. Cote.....	600 00	1,775 90					
			H. Hains.....	374 67	895 33					
			S. Anderson.....	376 67	685 05					
			A. W. Tolmie.....	376 67	765 00					
			E. Girardot	376 67	721 05					
			A. W. Despard.....	376 67	685 05					
			J. O. Turcotte.....	339 00	628 55					
			W. D. Dalglish.....	376 67	685 05					
		23,116 49		4,669 85	8,727 46	23,116 49				

(146)

CORRESPONDENCE RE PURCHASE OF "RAINBOW."

OTTAWA, 8th November, 1909.

MEMO FOR ACTING DEPUTY MINISTER.

The following telegram has been received from the Admiralty, in Naval Code, viz.:

Arrangement discussed with Brodeur was purchase of one Cruiser of 'Apollo' type fitted for sea service in April next, money not being available for second vessel. Detailed report now received indicated one such cruiser could be supplied for 50,000 pounds sterling. First Lord of the Admiralty desires to know whether this arrangement is to be proceeded with, and whether money will be forthcoming for second cruiser. Otherwise Brodeur should state specifically what Canadian Government wish as an alternative.

C. E. KINGSMILL,
Rear Admiral.

11th November, 1909.

GRAHAM GREENE,
Admiralty, London.

Canadian Government would like arrangements for one 'Apollo' proceeded with, and wish to know if 'Spartiate' can be obtained for second cruiser and on what terms. Reply by telegraph requested.

KINGSMILL.

Certified Copy of a Report of the Privy Council, approved by His Excellency the Governor General on the 22nd November, 1909.

The Minister of Marine and Fisheries states, under date the 12th November, 1909, that, in accordance with arrangements made during the recent Imperial Defence Conference, the Lords Commissioners of the Admiralty have offered to supply for service on the Coasts of Canada one Third-Class Cruiser of the 'Apollo' type fitted for sea in April, 1910, and to be handed over to the Government of Canada for the consideration of Fifty Thousand Pounds Sterling.

The Minister, therefore, recommends that he be authorized to proceed with the purchase of a cruiser, as indicated by the Lords Commissioners of the Admiralty on the above mentioned terms.

The Committee submit the same for approval.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

OTTAWA, 15th November, 1909.

MEMO. FOR DEPUTY MINISTER.

Submitted:—

Herewith is a copy of a telegram received from the Admiralty this morning in the Naval Code. The 'Hawk' class mentioned are cruisers of 7,350 tons, completed in 1893, had an original nominal speed of 20 knots, and a complement of 544 men. These ships have the old Marine Boilers, and would not give sufficient training to the Stokers or Engine Room Ratings. Moreover they have two 9·2 inch guns, a class of gun which will not be used in our new cruisers. Submit that the Admiralty be informed that the 'Hawk' class are not as acceptable as 'Spartiate.'

In fact these ships are not as suitable at all as a 'Spartiate' would be for training purposes.

C. E. KINGSMILL,
Rear Admiral.

NOTE.—Seen by the Minister and Approved.—G. J. DESBARATS.—17-11-'09.

15th November, 1909.

KINGSMILL,—

Treasury being asked sanction sale 'Rainbow' to Canadian Government £50,000. Have you considered 'Hawk' class as an alternative to 'Spartiate.'

GREENE.

17th November, 1909.

GRAHAM GREENE,
Admiralty, London.

'Hawke' class not considered suitable, 'Spartiate' class preferred, better accommodation, armament more modern, and carrying No. 9·2 guns, moreover water tube boilers. If a 'Spartiate' approved, on what terms could one be loaned and on what date will be available for Canadian Government.

KINGSMILL.

19th November, 1909.

GRAHAM GREENE,
Admiralty, London.

With reference to my telegram 17th November, after the word loaned insert the words 'or sold.'

KINGSMILL.

Telegram.

Decipher of telegram sent to Admiralty 4th December, 1909.

GRAHAM GREENE,
Admiralty, London.

Is question under consideration as to loan or sale of a 'Spartiate' or is it necessary to communicate through official channel.

KINGSMILL.

Decipher of telegram from Admiralty dated 7th December, 1909.

ADMIRAL KINGSMILL,
Naval Staff Office,
Ottawa.

Question of 'Spartiate' still under consideration, hope to shortly communicate further. When will Canadian Government send answer to Colonial Office telegram 2nd December *re* purchase of 'Rainbow,' time is important?

GREENE.

6th December, 1909.

The High Commissioner for Canada,
17 victoria Street,
London, S.W.

My Lord,—

I have the honour to request that you will inform the Lords Commissioners of the Admiralty that the Canadian Government wish the arrangements for the purchase of a Cruiser of the 'Apollo' class proceeded with.

The following information is forwarded to assist you in your negotiations with the Secretary of the Admiralty:—

In July and August this year, the Hon. L. P. Brodeur, Minister of Marine and Fisheries, Canada, then attending the Imperial Conference on the Naval and Military Defence of the Empire, made some enquiries of the Rt. Hon. Reginald McKenna, First Lord of the Admiralty, as to the possibility of the Lords Commissioners consenting to the loan or sale of a Cruiser of the 'Apollo' class to the Canadian Government, and Mr. McKenna promised to give consideration to the matter, and inform Mr. Brodeur on what terms a Cruiser of the 'Apollo' class could be disposed of.

On 8th November an informal cablegram was received from the Assistant Secretary to the Admiralty saying, 'Arrangement discussed with Brodeur was purchase of one Cruiser of 'Apollo' type fitted for sea service in April next, money not being available for second vessel. Detailed reports now received indicate one cruiser could be supplied for £50,000 sterling. First Lord of the Admiralty desires to know whether this arrangement is to be proceeded with, and whether money will be forthcoming for second cruiser. Otherwise Brodeur should state specifically what Canadian Government wishes as an alternative.'

A reply was sent as follows, also informal, or direct to the Admiralty:—'Government would like arrangements for one 'Apollo' proceeded with, and wish to know if a 'Spartiate' could be secured for second Cruiser, and on what terms. Reply by telegram requested.'

Since then, on 3rd December, a cable has been received through the Governor General's office, asking for confirmation of His Excellency's Government.

I have now the honour to inform your Lordship that an Order of Governor-in-Council has been passed, authorizing the purchase of this vessel, and it is requested that their Lordships will be pleased to proceed in the repair and fitting out of this vessel.

G. J. DESBARATS,
Deputy Minister.

7th December, 1909.

Right Hon. Lord Strathcona and Mount Royal, G.C.M.G.,
High Commissioner for the Dominion,
17 Victoria Street, London.

My Lord,—

I have the honour to request you will be pleased to approach the Lords Commissioners of the Admiralty on the following:—

While attending the Conference on the Naval and Military Defence of the Empire in London, July and August, 1909, an informal request was made to the Admiralty to consider on what terms they could provide Canada with two Cruisers of the 'Apollo' class. Since then negotiations for the purchase of one 'Apollo' have been entered into, but as it was found that it would be more expedient for training purposes if a Cruiser of 'Spartiate' class could be obtained instead of an 'Apollo,' a cablegram to that effect was sent on 11th November, informally, to the Assistant Secretary of the Admiralty. The following was the text:—'Canadian Government would like arrangements for one 'Apollo' proceeded with, and wish to know if 'Spartiate' can be obtained for second Cruiser, and on what terms. Reply by telegraph requested.'

A re ply was received to this cable as follows:—

'Treasury being asked sanction sale 'Rainbow' to Canadian Government £50,000. Have you considered 'Hawke' class as an alternative to 'Spartiate.'

To this the following reply was sent, on 17th November, 1909:—'Hawke' class not considered suitable. 'Spartiate' class preferred, better accommodation, armament more modern, and carrying No. 9·2-in. guns, moreover watertube boilers. If a 'Spartiate' approved, on what terms would one be loaned and on what date will be available for Canadian Government?'

I have now the honour to ask your Lordship to approach the Admiralty and to ascertain on what terms the Canadian Government can obtain a cruiser of either type sanctioned, *i.e.*, 'Spartiate' or 'Edgar.'

G. J. DESBARATS,
Deputy Minister.

FROM LORD CREWE TO LORD GREY.

London, 14th December 1909.

When may reply be expected to my telegram of 2nd December, purchase of 'Rainbow.'

CREWE.

17 Victoria Street, London, S.W.
17th December, 1909.

The Honourable
The Minister of Marine and Fisheries,
Ottawa, Canada.

Sir,—I have the honour to acknowledge the receipt of Mr. Desbarats' letter of the 6th instant, regarding the purchase of a Cruiser for the Canadian Government, and to state, in reply, that I had pleasure in at once addressing a communication to the First Lord of the Admiralty, in which I notified him that the purchase of a steamer of the 'Apollo' class had been authorised by the Dominion Government, and that I was instructed to request that the Lords Commissioners of the Admiralty may be pleased to proceed in the repair and fitting out of the vessel in question.

I need hardly say that I shall be glad to be of any service in the matter that may be required, and will give such details as may arise my best consideration.

STRATHCONA.

31st December, 1909.

The Right Hon. Lord Strathcona and Mount Royal, G.C.M.G., G.C.V.O.,
High Commissioner for the Dominion,
17 Victoria Street, London, S.W.

My Lord,—

I have the honour to acknowledge receipt of your Lordship's letter of the 17th instant, informing me that action had been taken in the matter of the 'Rainbow' as requested in a letter of the 6th December, signed by my Deputy Minister.

I beg to thank your Lordship for promising to give your best consideration to such details as may arise in this matter.

L. P. BRODEUR.

Admiralty, Whitehall, S.W.,
17th December, 1909.

Dear Lord Strathcona,—

I am much obliged for your letter regarding the cruiser for Canada which you were so good as to bring to me personally to the Admiralty. The necessary action in the matter is now being taken in the Department.

REGINALD McKENNA.

17 Victoria Street, London, S.W.,
17th December, 1909.

Dear Mr. Brodeur,—

In further reference to my official letter of to-day's date, I have now received a personal note from Mr. McKenna from which you will gather, that as you desired, the necessary action is being taken by the Admiralty in regard to the cruiser for Canada. I am sending a copy of Mr. McKenna's letter with this.

STRATHCONA.

11th January, 1910.

Right Honourable
Lord Strathcona and Mount Royal, G.C.M.G., G.C.V.O.,
17 Victoria Street, London, England.

Dear Lord Strathcona,—

In the absence of my Minister I have to acknowledge your letter of the 18th December to him, in which you enclose a communication from the First Lord of the Admiralty, to the effect that the necessary action concerning the 'Rainbow' is being taken, for which I am very much obliged.

G. J. DESBARATS,
Deputy Minister.

13th January, 1910.

Dominion, London.

Please obtain information from Admiralty when 'Rainbow' will be completed.

BRODEUR.

London, 7th February, 1910.

Brodeur, Ottawa.

Your cable thirteenth ultimo. Admiralty state impossible give at present definite date for completion 'Rainbow.' Anticipated will be out of Dockyard hands by end May but impossible make definite statement before beginning March when survey ship completed.

DOMINION.

17 Victoria St., London, S.W.,
8th February, 1910.

The Honourable L. P. Brodeur, M.P.,
Ottawa, Canada.

Dear Mr. Brodeur,—

Your cablegram of the 13th ultimo, reading as under, reached me in due course:—

'Please obtain information from Admiralty when 'Rainbow' will be completed,' and I had pleasure in at once communicating with the Admiralty on the subject.

I have kept the matter before me, but it was not until Monday last that I was able to cable you any information. I had then received a letter from the Admiralty, date the 4th instant, copy of which I enclose herewith, for your information, on which I was able to base the following cable message:—

'Your cable 13th ultimo.—Admiralty state impossible give at present definite date for completion 'Rainbow'—anticipated will be out of dockyard hands by end of May but impossible make definite statement before beginning March when survey ship completed.'

I will keep you notified, by cable, of the further information that reaches me on the subject.

STRATHCONA.

Admiralty, 4th February, 1910.

The High Commissioner for Canada,
17 Victoria Street, S.W.

Sir,—In reply to your letter of the 15th January, I am commanded by my Lords Commissioners of the Admiralty to acquaint you that it is not possible to give at present a definite date for the completion of the fitting out of the 'Rainbow.' It is anticipated she will be out of Dockyard hands by the end of May, but this must be accepted as approximate only, and it will not be possible to make a more positive statement before the beginning of March, when the survey of the ship has been completed.

Every effort will be made to complete the 'Rainbow' by an earlier date if possible.

C. I. THOMAS.

22nd February, 1910.

Right Honourable
Lord Strathcona and Mount Royal, G.C.V.O., G.C.M.G.,
17 Victoria Street, London, S.W.

Dear Lord Strathcona,—

In the absence of Mr. Brodeur through illness, I have to acknowledge receipt of your letter of the 8th instant, with which you forwarded a copy of a letter received from the Admiralty in answer to your enquiries, made on our behalf, of them, as to when the 'Rainbow' would be completed, for which I am very much obliged indeed.

G. J. DESBARATS,
Deputy Minister.

(146a)

CORRESPONDENCE RE PURCHASE OF "NIOBE."

OTTAWA, 11th November, 1909.

Graham Greene, Admiralty, London.

Canadian Government would like arrangements for one 'Apollo' proceeded with, and wish to know if 'Spartiate' can be obtained for second Cruiser, and on what terms. Reply by telegraph requested.

KINGSMILL.

LONDON, 15th November, 1909.

KINGSMILL,

Naval Staff Office, Ottawa, Canada.

Treasury being asked sanction sale of 'Rainbow' to Canadian Government £50,-000. Have you considered 'Hawke' class as an alternative to 'Spartiate?'

GREENE.

OTTAWA, 17th November, 1909.

Graham Greene, Admiralty, London.

'Hawke' class not considered suitable. 'Spartiate' class preferred, better accommodation, armament more modern, and carrying No. 9·2-in. guns, moreover watertube boilers. If a 'Spartiate' approved, on what terms could one be loaned and on what date will be available for Canadian Government?

KINGSMILL.

OTTAWA, 19th November, 1909.

Graham Greene, Admiralty, London.

With reference to my telegram 17th November, after the word loaned insert the words 'or sold.'

KINGSMILL.

OTTAWA, 4th December, 1909.

Graham Greene, Admiralty, London.

Is question under consideration as to loan or sale of a 'Spartiate' or is it necessary to communicate through official channel?

KINGSMILL.

Extract from telegram of 7th December, 1909.

Admiral Kingsmill, Naval Staff Office, Ottawa.

Question of 'Spartiate' still under consideration, hope to shortly communicate further.

GREENE.

7th December, 1909.

Right Honourable
Lord Strathcona and Mount Royal, G.C.M.G.,
High Commissioner for the Dominion,
17 Victoria Street, London.

My Lord,—

I have the honour to request you will be pleased to approach the Lords Commissioners of the Admiralty on the following:—

While attending the Conference on the naval and Military Defence of the Empire in London, July and August, 1909, an informal request was made to the Admiralty to consider on what terms they could provide Canada with two Cruisers of the 'Apollo' class. Since then negotiations for the purchase of one 'Apollo' have been entered into, but as it was found that it would be more expedient for training purposes if a Cruiser of 'Spartiate' class could be obtained instead of an 'Apollo,' a cablegram to that effect was sent on 11th November, informally, to the Assistant Secretary of the Admiralty. The following was the text:—'Canadian Government would like arrangements for one 'Apollo' proceeded with, and wish to know if 'Spartiate' can be obtained for second Cruiser, and on what terms. Reply by telegraph requested.'

A reply was received to this cable as follows:—

'Treasury being asked sanction sale 'Rainbow' to Canadian Government £50,000. Have you considered 'Hawke' class as an alternative to 'Spartiate?'

To this the following reply was sent, on 17th November, 1909:—'Hawke' class not considered suitable. 'Spartiate' class preferred, better accommodation, armament more modern, and carrying No. 9·2-in. guns, moreover watertube boilers. If a 'Spartiate' approved, on what terms would one be loaned and on what date will be available for Canadian Government?'

I have now the honour to ask your Lordship to approach the Admiralty and to ascertain on what terms the Canadian Government can obtain a Cruiser of either type sanctioned, *i.e.*, 'Spartiate' or 'Edgar.'

G. J. DESBARATS.
Deputy Minister.

10th December, 1909.

To Admiral Kingsmill, Naval Staff Office, Ottawa.

Subject to the approval of Treasury, Admiralty are prepared to sell 'Niobe' to Canadian Government for lump sum of £215,000 made up as follows—for ship in efficient seagoing and fighting condition £160,000—Guns and torpedoes £20,000—Ammunition and packages—outfit only £25,0000. Sea stores without coal—£10,000.

GREENE.

5th January, 1910.

Cable.

My Government is informed that the Admiralty is willing to consider sale of 'Niobe' of 'Spartiate' class. Would you kindly ascertain from Admiralty conditions upon which they would sell this cruiser to Canadian Government?

GREY.

SESSIONAL PAPER No. 146a

OTTAWA, 17th January, 1910.

G. J. Desbarats, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.

Dear Mr. Desbarats,—

In response to your telephonic requests, I have much pleasure in sending you a further copy of Lord Crewe's despatch of the 13th January, 1910, on the subject of the purchase of the 'Niobe.'

JOSEPH POPE.

FROM LORD CREWE TO LORD GREY.

LONDON, 13th January, 1910.

With reference to your telegram of 5th January. Subject to approval of Lords Commissioners of the Treasury. Admiralty will sell 'Niobe' on terms stated in Graham Greene's telegram of December 10th to Kingsmill. Do your Government accept?

CREWE.

18th January, 1910.

The Under Secretary of State for External Affairs, Ottawa.

Sir,—I have the honour to request that the following reply may be sent through the Governor General's Office to the Secretary of State for the Colonies, with reference to the 'Niobe,' viz:—'Government accept the offer for 'Niobe' on terms stated in Graham Greene's letter 10th December, subject to approval of Dominion Parliament.'

G. J. DESBARATS,
Deputy Minister.

P.C. 85.

Certified Copy of a Report of the Committee of the Privy Council approved by His Excellency the Governor General on the 5th February, 1910.

On a Memorandum, dated 3rd January, 1910, from the Minister of Marine and Fisheries, stating that he has had under consideration the question of the purchase from the Admiralty, of an additional cruiser for training purposes in connection with the naval forces of Canada.

The Minister observes that the technical officers of the Department of Marine and Fisheries recommend that a ship of the 'Spartiate' class be obtained. They submit that it will be necessary, until the new ships for the Canadian Navy are ready for use, to provide a ship in which large numbers of men can be completely trained. The 'Spartiate' class will not only afford the means for such training but will obviate the necessity for having so large a proportion of skilled ratings from the Royal Navy on the first manning of the new ships.

The Minister further observes that in these circumstances he caused enquiries to be made of the Admiralty as to the terms on which a ship of the 'Spartiate' class could be obtained, and he is informed that, subject to the approval of the Treasury Department, the Admiralty are prepared to sell 'Niobe' to the Canadian Government for a lump sum of £215,000, in efficient seagoing and fighting condition including guns, torpedos, ammunition, packages, outfit, and sea stores without coal.

The Minister is advised that the 'Niobe' was completed in 1899 at a cost of £600,000 and that her dimensions and equipment are as follows:—

Displacement, 11,000 tons.
Draught, 26 feet.
Armament, 16 6-inch guns; 12 12-Pdr. guns, 5 3-Pdr. guns, 2 submerged torpedo tubes.
Speed, 20½ knots.
Complement, 600.

The Minister concurring in the report of the technical officers of the Department of Marine and Fisheries recommends that authority be given to purchase the 'Niobe' from the Lords Commissioners for a lump sum of £215,000, subject to the money being voted by Parliament.

The Committee submit the same for approval.

RUDOLPHE BOUDREAU.
Clerk of the Privy Council.

OTTAWA, 24th December, 1909.

Admiralty, London.

The Canadian Government are considering tht building of 11 ships originally suggested, 'Niobe' to replace either a 'Bristol' or 'Boadicea.' Wish advice from Admiralty as to which.

BRODEUR.

LONDON, 28th December, 1909.

Hon. L. P. Brodeur, Ottawa.

In order to simplify ammunition reserve and supply and to preserve homogeneity suggest 'Niobe' replace 'Boadicea.'

FIRST LORD OF THE ADMIRALTY.

17 Victoria Street, London, S.W.
22nd December, 1909.

The Deputy Minister of Marine and Fisheries, Ottawa, Canada.

Sir,—I am directed to acknowledge your letter of the 7th instant, regarding the desire of the Canadian Government to obtain a second cruiser, preferably one of the 'Spartiate' class and to state that Lord Strathcona is communicating with the Admiralty on the subject, as desired.

As soon as His Lordship is informed of the decision of the Lords Commissioners of the Admiralty in the matter, he will be glad to communicate its terms to your Department.

W. L. GRIFFITH.

17 Victoria Street, London, S.W.,
3rd January, 1910.

The Hon. L. P. Brodeur, M.P., Ottawa, Canada.

Dear Mr. Brodeur,—With further reference to the letter from your Department of the 7th ultimo, regarding the desire of the Canadian Government to obtain a second Cruiser, preferably one of the 'Spartiate' class, I am now furnished by the Admiralty with the copy of a telegram which they dispatched to Rear-Admiral Kingsmill on the 10th ultimo, giving particulars of the terms on which they would be willing to sell the

'Niobe,' one of the 'Spartiate' class of cruisers, to the Dominion Government, subject to the approval of the Treasury.

Meanwhile, I am informed that no further particulars as to this cruiser have been asked for from the Admiralty, so that at present the matter would appear to be under consideration in your Department.

I shall be glad to be of any service in the matter that you may require.

STRATHCONA.

P.C. 118.

Certified Copy of the Report of the Committee of the Privy Council, approved by His Excellency the Governor General on the 24th January, 1910.

The Committe of the Privy Council have had under consideration a report, dated 19th January, 1910, from the Secretary of State for External Affairs, to whom was referred a telegraphic despatch, dated 13th January, 1910, from the Right Honourable the Principal Secretary of State for the Colonies, with reference to the purchase of the 'Niobe.'

The Minister recommends that the Canadian Government accept the offer for the 'Niobe' on terms stated in Graham Greene's letter of the 10th December, 1909, subject to the approval of the Dominion Parliament, as follows, namely:—

For ship in efficient seagoing and fighting condition.. ..	£160,000
Guns and Torpedos..	20,000
Ammunition and packages, outfit only..	25,000
Sea Stores, without coal..	10,000
	£215,000

The Committee advise that Your Excellency may be pleased to inform the Right Honourable the Principal Ssecretary of State for the Colonies, by telegraph, in this sense.

RUDOLPHE BOUDREAU.
Clerk of the Privy Council.

20th January, 1910.

Right Honourable
Lord Strathcona and Mount Royal, G.C.V.O., G.C.M.G.,
17 Victoria Street, London, S.W.

Dear Lord Strathcona,—

In the absence of my Minister, I have to acknowledge receipt of your letter of the 3rd inst., forwarding a copy of a telegram despatched to Rear-Admiral Kingsmill by the Admiralty, giving the terms on which they would be willing to sell the 'Niobe' to the Dominion Government, subject to the approval of the Treasury, which you received from them.

I am very much obliged for this, and for your promise to do what you can in the matter.

G. J. DESBARATS.

⊕

RETURN

(149)

To an Order of the House of Commons, dated the 14th day of March, 1910, showing the names of the sessional and temporary employees of the House of Commons who were under pay on the 27th January last; and the number of the said employees stated in the Estimates of 1909-10.

THOS. B. FLINT,
Clerk of the House of Commons.

Sessional Clerks (31).

Fournier, P. C.
Brown, A.
Beaudin, J.
Beauschene, A.
Bélanger, A.
Bertrand, A.
Bibeau, A. J.
Bergeron, G.
Blount, A. E.
Clouthier, V.
Decary, J. B.
Dessaint, J. C.
Dudley, M.
Forgie, H. M.
Fumerton, J.
Glasier, A.
Hollingsworth, G.
Howatt, H.
Kelly, T.
Kennedy, J. W.
LaRoque, P.
Molony, J. S.
Mitchell, J. G.
Morris, E. L.
Morrison, J. S.
Mounsey, T. D.
Rogers, F.
Ross, A. H.
Stevenson, J. H.
Taché, J. B.
Valliers, Henri.

Sessional Translators (3).

Nouelles, L.
Larose, P.
Daoust, C. R.

Temporary Clerks (10).

Bourke, L.
Camp, G.
Carter, E. S.
Lamoureux, E. M. J.
Macdonald, J. A.
McColl, A. E.
McLachlan, J.
Patterson, R.
Pinard, J. A.
Talbot, F. H.

Debates Amanuenses (9).

Aubry, A. J.
Boyce, I. A.
Cole, D. G.
Desjardins, M. B. A.
Gibson, M.
Owens, H. T.
Semple, F. G.
Smith, J. H.
Turcotte, E.

Committees Amanuenses (2).

Martin, L.
O'Regan, O. G.

Bookkeepers (2).

Turner, G. H.
Vaughan, H. C.

Doorkeepers (3).

Hassard, N.
Nolan, M.
Williams, W. G.

Sessional Messengers (52).

Arnold, John
Beaulieu, A.
Bingham, J.
Brazeault, C.
Brisson, J. B.
Bodley, C.
Boles, T.
Boileu, J.
Boulais, D.
Brisbois, E.
Bujold, J.
Charlebois, J. H.
Chene, E.
Corridon, E.
Cliff, E. P.
Desmarais, L.
DesRosiers, U.
Egan, H. J.
Farrell, P.
Glenn, C.
Genest, N. A.
Gilbert, P.
Helmer, N.
Headley, J.
Hewlett, T.
Jamieson, J.
Jallet, N.
Jobin, O.
Joncas, T.
Joyce, T.
LeCavallier, J. A.
Léger, H.
Lortie, L.
Lafortune, R.
Letourneau, O.
Limoges, A.
Minahan, P.
Marceau, W.
McGuire, J. E.
McMillan, A.
McDonald, D. D
McDonald, James
Nicol, John
Oulette, T.
Oulette, S.
Pearson, Alfred
Quallins, C.
Roy, J. A.
Samoisette, J. A.
Salvas, P.
Sharp, A.
St. Louis, J. F.

Servants and Attendants (9).

Boulet, L.
Dion, O.
Healey, E. W.
Jones, J. C.
McLachlin, A.
Watters, J. R.
Laroque, Mrs. V.
Halfpenny, Mrs. M.
Artois, Miss P.

Pages (20).

Battle, E.
Barrette, E.
Baxter, A.
Bruyère, F.
Côté, L.
Currie, John
Ferrari, R.
Foley, J.
Grant, R.
Gibson, W.
Humphreys, G.
Killeen, G.
Magurn, A. G. M.
Noël, L.
Paré, A.
Plamondon, A. P.
Schingh, G.
Spielmachen, H.
Thompson, A.
Young, T. R.

Electric Light Attendant.

Desmarais, F.

Sessional Charwomen (38).

Agar, J.
Bambridge, J.
Bradley, J.
Chenier, A.
Condell, M.
Dallaire, M.
Dooner, M.
Dwoergies, C.
Gauthier, A.
Godin, M.
Guertin, E.
Hebert, G.
Herbert, J.
Hennessy, M.
Kelly, J.
Killduff, M.
Latour, N.
Latour, A.
Lacourse, M.
Lappy, L.
Marcier, A.
McAllister, M.
McNicoll, M.
Moxley, F.
Monette, F.
Munro, C.
Pelletier, V.
St. Martin, M.
Sinotte, M.
Sherman, L.
Preston, E.
Riopelle, M.
Roy, C.
Roy, S.
Roy, V.
Viau, R.
Walsh, M. E.
Ward, T. D.

Total number, 180.

The number of sessional and temporary employees stated in the Estimates of 1909-10 is as follows:—

Sessional clerks and Speaker's secretary	31	
Messengers and doorkeepers	50	
Pages	16	
Servants and attendants	8	
Sessional charwomen	33	
Electric light attendant	1	
Bookkeepers (messengers' room)	2	
		141

Not specified in the Estimates:—

Sessional translators	3	
Temporary clerks	10	
Debates amanuenses	9	
Committees amanuenses	2	
Messengers	5	
Pages	4	
Servants and attendants	1	
Sessional charwomen	5	
		39
		180

THOS. B. FLINT,
Clerk of the House of Commons.

RETURN

(168)

To an Order of the House of Commons, dated the 24th November, 1909, for a copy of all correspondence and papers, and any information possessed by the Government relating to the formation and work of the Secretariat decided upon by the Imperial Conference of 1907.

CHAS. MURPHY,
Secretary of State.

Canada.
Confidential.

From Lord Elgin to Lord Grey.

Downing Street, September 21, 1907.

My Lord,—I have to-day addressed to you a despatch marked 'Miscellaneous,' relating to the reorganization of the Colonial Office and the formation of a 'Dominions' Department and an Imperial Secretariat.

2. I have addressed despatches in identical terms to the governments of the other self-governing Dominions, and as they will not reach their destinations in Australia and New Zealand for some weeks, I have to request Your Lordship to arrange with your Ministers to be good enough to *refrain from giving publicity to the despatch for about three weeks after its receipt by you.*

3. I am addressing a similar despatch to the Governor of Newfoundland.

ELGIN.

Canada.
Miscellaneous.

Downing Street, September 21, 1907.

My Lord,—Since the Conference of Prime Ministers separated in May, I have had under my consideration the arrangements which would most suitably carry out the pledge which I gave at that Conference so to endeavour to arrange the work and the staff of the Colonial Office as to constitute a separate branch of that office for dealing with the business of the self-governing Colonies and to connect with it a permanent Secretary who, with such assistance as may be found to be necessary, will be specially charged with the duties, retrospective and prospective alike, imposed or contemplated by the periodical conferences.

Before the close of the late Session of Parliament I was able on the 22nd of August to make a brief statement in the House of Lords indicating the lines upon which those arrangements will be based, of which I enclose a copy, and I will now proceed to make some comments upon the scheme for the information of your Prime Minister and his colleagues.

2. The Resolution on the subject which was adopted at the late Conference was as follows:—

'That it is desirable to establish a system by which the several governments represented shall be kept informed during the periods between the

Conferences in regard to matters which have been or may be subjects for discussion, by means of a permanent secretarial staff, charged, under the direction of the Secretary of State for the Colonies, with the duty of obtaining information for the use of the Conference, of attending to its resolutions, and of conducting correspondence on matters relating to its affairs.'

I indicated my views on the subject in the following terms:—

'I am prepared to say that we will endeavour, I think we shall succeed, to so separate the departments of this office that you will have in the office . . . . . a distinct division dealing with the affairs of the responsibly governed colonies'; and again

'What we have in our minds to carry out, and hope to be able to carry out in the future, is that we should appoint a gentleman on our staff to be the Secretary for the Conference, not for one Confernce only, but to continue the business as a member of the staff of the office and in a division of the office, as I said before, but that being his specific duty, thereby focussing all the business in the way which I think the members of the Conference in their various resolutions expressed the desire it should be.'

3. Your Minister are probably aware that the business of the Colonial Office has been arranged up to the present time mainly on geographical lines, though there is a General Department, to which certain matters common to all the Colonies are referred. This General Department I propose in future to strengthen and enlarge but otherwise to make the line of division in the office one of status rather than of geography, and to separate entirely the work of the self-governing Colonies from that of the Crown Colonies and Protectorates. The only exception will be in the case of those Crown Colonies and Protectorates in the Pacific and connected with South Africa whose interests are so closely related to those of the adjoining self-governing Colonies that the conduct of their business at this office must necessarily be entrusted to the same hands. The Colonial Office will therefore in future be divided into three branches or departments, one dealing with the self-governing Colonies, a second dealing with the Crown Colonies and Protectorates, and a third —the General Department.

4. The first of these three departments will be known as the Dominions Department, the term being used to differentiate the status of the self-governing provinces of the Empire from that of the Crown Colonies. All the business of every kind connected with the self-governing communities will be included in its scope, though certain matters of general routine must necessarily be shared with the General Department; and the staff of the Dominions Department will, with the exception mentioned above, be in no way concerned with the Crown Colonies.

All questions of emigration will be referred to this Department, and it will keep in close touch with the Commercial Intelligence Committee of the Board of Trade.

5. The Secretariat of the Imperial Conference will be linked to this Department, without being entirely merged in it. The Secretary will be a member of the Department, but he will also have his own special and separate duties; and he will have, as occasion requires, direct access to the Secretary of State. I suggest, as a matter of convenience, and also in order to emphasize his position, that on all matters of routine arising out of and connected with the Imperial Conference, the Secretary and the Colonial Ministries shall correspond directly with each other, the correspondence in all cases passing under flying seal between the Secretary of State and the Governor-General or Governor. I shall also be glad to learn to what extent your Ministers may desire to suggest that the High Commissioner or Agent-General in this country should act as an alternative channel of communication, as I am anxious to establish close and harmonious relations between them and the

Secretariat. The Secretariat, either directly or through the Dominions Department, will be represented on, or closely allied to the Commercial Intelligence Committee.

6. The second department of the Colonial Office, which will be styled the Colonial or Crown Colonies Department, will deal with all the administrative and political work of the Crown Colonies and Protectorates which forms a great and growing charge; and the third, or General Department, will be also the Legal Department, and, in addition to the general routine business of the office, which is now transacted by it, and to all personal questions arising in the Crown Colonies, will deal with various matters common to all the Crown Colonies—such as currency, banking, postal and telegraph matters, education, medical and sanitary questions, pensions, patronage, and so forth. In connection more especially with this Department four standing committees will be established, viz., a Patronage and Promotions Committee, a Railway and Financial Committee, a Concessions Committee, and a Pensions Committee.

7. The permanent staff of the Colonial Office includes at the head of the office the Permanent Under-Secretary of State and four Assistant Under-Secretaries. The Permanent Under-Secretary of State will remain as now the permanent head of the whole office and the principal adviser of the Secretary of State. The four Assistant Under-Secretaries will be allotted as follows. Mr. Antrobus will take control of the Crown Colonies Department with its very heavy and important work. Mr. Cox will have control of the General Department; he will as a rule preside over the Standing Committees; and, as Legal Adviser, his services will, as now, be utilized in connexion with all the departments. The Dominions Department will be under the control of the Senior Assistant Under-Secretary, Mr. Lucas, and with him will be associated Mr. Just, the junior Assistant Under-Secretary, whom I have nominated to be Permanent Secretary to the Imperial Conference. Mr. Lucas's long experience of Colonial administration in this office is supplemented by special knowledge of emigration questions; and he will bring to bear upon his new duties many years' close study of Colonial history. Your Ministers need not be reminded that Mr. Just was one of the Joint Secretaries to the late Conference; he has served in the Colonial Office since 1878, acted as Assistant Secretary to the first Colonial Conference in 1887, and has had personal experience of South Africa. He is, in my opinion, well qualified for the important post to which I have appointed him, and I am confident that on his part and on the part of those who will assist him every effort will be made to carry out the work of the Secretariat with efficiency and success.

8. Such is an outline of my proposals for re-arranging the work of the Colonial Office. They are made in the strong desire to promote the interests of all parts of the Empire, and to produce efficient and sympathetic treatment of the manifold questions that arise. I ask for, and I am confident that I shall receive, cordial co-operation from all concerned.

ELGIN.

Enclosure.

'Hansard,' Vol. CLXXXI., pp. 1067-1071.

BUSINESS OF SELF-GOVERNING COLONIES.

THE EARL OF JERSEY: I desire to ask the noble Earl the Secretary of State for the Colonies the Question which appears in my name, viz.:—

> 'If he is in a position to communicate to the House the steps for the better ordering of the business of the Self-Governing Colonies and of the Imperial Conferences which at the recent Conference he stated to be in contemplation.'

In asking this question, I will only say that at the recent Conference a strong desire was expressed that there should be some re-arrangement at the Colonial Office

which would enable that office to be in closer touch with the Self-Governing Colonies, and also to provide for the work of the Imperial Conferences. That matter was left with the noble Earl, the Secretary of State. It could not be left in better hands.

The SECRETARY OF STATE FOR THE COLONIES (The Earl of Elgin): I need not say that I shall be as succinct as possible at this hour of the night. But, as the noble Earl has said, this is a matter which has attracted a good deal of attention, not only in this country, but also in the Colonies, and I should like, as I am now able to do, to give some explanation as to the steps which we propose to take. The first resolution which was adopted by the late Conference had in it a passage which I desire to quote. It said—

> 'That it is desirable to establish a system by which the several Governments represented shall be kept informed during the periods between the Conferences in regard to matters which have been or may be subjects for discussion, by means of a permanent secretarial staff, charged, under the direction of the Secretary of State for the Colonies, with the duty of obtaining information for the use of the Conference, of attending to its resolutions, and of conducting correspondence on matters relating to its affairs.'

This proposal was submitted by myself on behalf of His Majesty's Government, and therefore what I have to do is to say how I propose to redeem the promise which I then gave. It will be remembered that there were other proposals before the Conference on this subject. There were resolutions which had been prepared by the Colonies of Australia and New Zealand and the Cape, and the propositions embodied in them were supported by the representatives of those Colonies at the Conference. They suggested the appointment of a secretariat, independent of the Colonial Office, by the Conference itself. To that arrangement His Majesty's Government took exception on the ground that it was entirely inconsistent with the Ministerial responsibility which exists, not only in this country, but also in each and every colony which enjoys self-government, and we were supported in that view by several members of the Conference, and especially by the Prime Minister of Canada Sir Wilfrid Laurier. Sir Wilfrid Laurier speaks with so much authority and distinctness that I desire to give his opinion in his own words. Sir Wilfrid Laurier said—

> 'I am quite satisfied upon the principle conceded, that what is done is to be done on direct responsibility. That is the only subject, as originally proposed, to which I demurred, because it seemed to be the creation of an independent body. The moment it is recognized here that it is to be under direct responsibility, I am satisfied. I am quite prepared to accept the new principle, but I would not like to commit myself immediately to the drafting of the resolution, which perhaps may be improved.'

Now, my Lords, I cannot refer to any division list—we fortunately did not take many formal divisions at the Conference—but the fact remains that though the representatives of the Colonies to which I have referred supported their own propositions, the resolution which I have quoted was finally adopted without a dissentient voice. I am obliged, however, to trouble the House with another quotation, because the concise language of the resolution itself might otherwise not be so clearly understood. In the course of the discussion I endeavoured to remove, so far as I could, any ambiguity as to the intentions of His Majesty's Government. On the first day I defined our position as follows. I said—

> 'If you accept our proposition that we should with Ministerial responsibility provide the link which you desire, and which we think you reasonably desire, between Conference and Conference, you should allow us a free hand in other respects. . . . The proposition which I put forward I put forward on my own responsibility as Secretary of State for the Colonies, but with the assent of my colleagues, and I hope therefore that the Conference will give it at

least as favourable consideration as possible. . . . We will endeavour, I think we shall succeed, to so separate the departments of this office that you will have in the office in the form which we shall present it to you, a distinct division dealing with the affairs of the responsible governed Colonies. I will not say it will be exactly apart, because there is, and must be, at the head, at any rate, a connecting link between the several parts of any office, but there will be one division which you will feel will be concerned with the business of all the self-governing Colonies, and not directly with that of the Crown Colonies.'

On the second day I found it necessary to add a further explanation, and I said—

'What we have in our minds to carry out and hope to be able to carry out in the future, is that we should appoint a gentleman on our staff to be the secretary for the Conference, not for one Conference only, but to continue the business as a member of the staff of the office and in a division of the office, as I said before, but that being his specific duty, thereby focussing all the business in the way which I think the members of the Conference in their various Resolutions expressed the desire it should be. That is what we hope to do, and that is the reason we use the expression 'secretarial staff.' You quite understand, I think, that we can make that arrangement without interfering with the responsibility or organization of the office, but still in such a manner, I think, so far as it is capable of being done within the walls of the office, as to meet the wishes that the other members of the Conference have expressed. That is the meaning of the expression.'

Upon that Sir Wilfrid Laurier remarked—

'I do not care how it is expressed, so long as it is on Ministerial responsibility, that is the only thing I attach importance to.'

I think, therefore, my Lords, I have made it quite clear that the idea of an independent body was not entertained by the Conference, and in the second place that the idea of a scheme within the walls and under the responsibility of the Colonial Office was fully before the Conference and was entertained. That being so, the only scheme which I can be expected to lay before your Lordships this evening is one on those lines. I shall not detain the House by any description of the organization of the Colonial Office as it is now. It may suffice to say that geographical divisions into which it was, I think, originally divided have become somewhat obscured by the gradual accretions of spheres of duty in many parts of the world, and it is not very easy now to define any very distinct principle on which it is organized. The work generally, however, is divided into four Departments under four assistant Under-Secretaries of State, above them standing the permanent Under-Secretary as the head of the Office, and a link between them and the Secretary of State. I hope that will be sufficient in order to make the change we now propose to introduce intelligible to your Lordships. What we propose to do is to divide the office into three Departments instead of into four. The first of these Departments we propose to term the Dominions Department. It will deal exclusively or practically so with the self-governing Dominions beyond the seas. The only work outside the business of those Dominions would be that originating in certain Protectorates or possessions which are geographically or otherwise connected with the Dominions. I may mention as instances in point, at this present moment, the Protectorates in South Africa under the charge of the High Commissioner, and the islands of the Pacific. The other Departments do not, of course, come directly under the question of the noble Lord, and so I shall not deal with them in any detail, but I may mention that we propose to term the second Department the Colonial Department. It will, of course, deal with the Crown Colonies, and it will be a very heavy Department on

account of the immense amount of administrative work and control involved in the management of the many Crown Colonies and Possessions of the Crown, and the ever-increasing importance and value that attaches to them. The third Department will be called the General Department. It will deal with the legal, financial, and other general business of the Office, and I may mention that under this Department we propose to establish a new feature in the shape of certain Standing Committees to take a collective view of such matters as contracts, concessions, mineral and other leases which come to us from all parts of the world, and also the matter of patronage, which is one of considerable importance and delicacy in the Colonial Office. This is the arrangement of the business of the Office which we propose to introduce, stated in general terms. I shall not trouble the House with any details, but I will just simply say, to prevent any misunderstanding, that we are not only dealing with the superior officers, but we are working out a reorganization throughout with all the necessary divisions and sub-divisions.

I proceed to the other branch of the subject, which is the personnel, and I propose to place at the head of the Dominions Department the senior assistant Under-Secretary of State. Mr. Lucas is a gentleman of very high academical and literary distinction, who has managed, even amongst the preoccupations of his official duties, to find time for works of merit on Colonial and especially on Canadian history. He has had a long experience of Colonial administration and his attractive and sympathetic personality has made him many friends in every quarter. I am certain that the task of recommending this new Department to our brethren beyond the seas can safely be entrusted to him. Second to this appointment and probably one which will attract even more interest is the nomination of the Secretary to the Conference. I have already quoted what I said to the Conference in regard to this matter. My promise was to take from our own staff a gentleman for the special duties arising out of the work of the Conference connected with what had passed and leading up to the future. I say at once that this post ought to be filled by a man of proved ability, of wide experience, and of a standing which will justify him in having access, whenever necessary, direct to the Secretary of State. I am glad to say that I can secure at once continuity from Conference to Conference. I feel that I am able to promote to this new post the gentleman who occupied the position of Joint-Secretary to the late Conference. Mr. Just has an experience of Colonial affairs which is second to none, and a special knowledge of South African business, having visited the country himself when the Secretary of State of the time paid a visit to it. He has an unsurpassed capacity for work, and the Papers which he presented for the last Conference were never mentioned without its members expressing their appreciation. He holds the rank of Assistant Under-Secretary, and I claim that in appointing him to this post I am appointing a man of experience, of merit, and of position which ought to secure for it the esteem which its best friends desire. I will not go further to-night; I will not mention other members of the staff by name, but I will only just observe that I feel I shall be able to find men in our service who have visited the self-governing Colonies, and I shall be only too glad to profit by their experience.

I think it right to make one remark as to a very unfair prejudice which is sometimes excited by semi-contemptuous references to Colonial Office Clerks. That is an expression calculated to mislead, but I am sure it will not mislead in this House. It is well known by all who care to know that the higher ranks in the Public Service of this country are filled by members of the great Civil Service of which this country is proud, and from which the requirements of India, as well as of England, are met by the same examinations and from the same lists. The gentlemen in the Colonial Office have passed the severest educational tests, many of them possess university distinctions, and they are men who have ungrudgingly devoted the best years of their life to work which no doubt has moments of great interest and excitement, but

which is, after all, apt to be monotonous and is certainly arduous, unceasing and responsible beyond that of most men. I would only remark that that career is open to all subjects of His Majesty, and is open to our brethren beyond the seas if they choose to qualify themselves for it, and as I ventured to say in the Conference, possibly under the influence of the Rhodes Scholarships more Colonials will enter our ranks. We shall be only too happy to give them a welcome. I would only say just one word in conclusion. I have pointed out that it was the decision of the Conference itself which limited me definitely to the line of advance which I have pursued. I maintain that I have carried out my mandate fully and without reserve, and though I am not without sympathy with those who think that there are more advanced posts that might be occupied at some future time, I venture to say that we have at the present moment taken possession of the most advanced post which we can safely occupy. After all, representative institutions are the truest defences of our liberties, and we must make the machinery of government conform to the requirements of the representative institutions which we possess. I think I have now given the noble Lord all the information which at this time to-night it is reasonable to inflict upon the House.

THE EARL OF JERSEY: I think the statement the noble Earl has just made clearly shows that he carried out what seems to have been the undertsanding, judging by the Blue-book, at the recent Conference. I believe also his decision to have a Dominions Department for the self-governing Colonies will be received with great satisfaction in other parts of the Empire. I was also glad to hear him say a word on behalf of the staff of the Colonial Office. It is true that sometimes criticisms are passed on the staffs, but, after all, criticisms are passed on the very best of staffs, and they no doubt sometimes arise because people do not get exactly what they want. Those who have had the opportunity of dealing with the Colonial Office, whether as regards the Chief or those who serve under him, will say that they have always met there with the greatest ability and also the greatest courtesy, and I trust in the Dominions of the Crown the same satisfaction will be felt as I feel with the remarks which the noble Earl has made with regard to his decision in the re-arrangements of his office.

Cable.

Lord Elgin to Lord Grey.

LONDON, October 25, 1907.

My confidential despatch of 21st September, respecting Colonial Office reorganization will not be published before 12th November here ,when it will have reached New Zealand.

Your Ministers will oblige me if they do not publish it before that date.

ELGIN.

From Lord Crewe to Lord Grey.

DOWNING STREET, May 15, 1908.

MY LORD,—I shall be glad to learn whether your Excellancy's Ministers wish to offer any observations on my predecessor's despatch Miscellaneous of the 21st September last, on the subject of the reorganization of the Colonial Office.

2. Replies have now come from all the self-governing dominions except Canada and New Zealand and if your Ministers have any comments to make on the despatch I shall be glad to receive them.

CREWE.

From Lord Crewe to Lord Grey.

DOWNING STREET, August 18, 1908.

MY LORD,—I have the honour to refer to my despatch No. 262 of the 15th May, and to request you to inform your Ministers that if they desire to make any comments on Lord Elgin's despatch of the 21st September last on the subject of the reorganization of the Colonial Office, I shall be glad to receive them as soon as may be convenient.

CREWE.

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